The Listener

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America and the Defence of Europe

By MICHAEL HOWARD

NXIETY has been increasing, over the past year, in both Europe and America, about the whole military situation of the West; paradoxically, in spite of the improvement in relations between the West and Russia; and this anxiety is perhaps more intense now than at any time since Nato came into being ten years ago. The reasons for this disquiet are discussed in an interesting, if not easily readable, symposium by some of America's leading defence analysts which the Princeton University Press has recently published under the title Nato and American Security*. The contributors adopt many different approaches and their arguments do not always agree; but broadly speaking their conclusions are these.

For the past five years, ever since it became obvious that the Nato powers could not or would not raise the 100-odd divisions which had at first been thought necessary to defend Europe, Nato strategy has rested on the concept known as 'The Sword and the Shield'. In the event of a Russian attack; the ground forces in Europe were not to fight a prolonged campaign, but to act as a 'Shield' to hold up the onslaught for a limited period, while the 'Sword' of American air power struck at Russian bases and cities, from airfields scattered around the perimeter of the Eurasian land-mass as well as from the United States. Without the Shield, the Sword could not be brought into action, for there might be no clear casus belli; without the Sword, the Shield forces could impose—so it was thought—so brief a delay that it seemed barely worth undertaking the defence of Europe at all.

This idea was never immune from criticism. The decision to

equip Nato forces with tactical atomic weapons, and the declared intention to use them even if the Russians launched a purely conventional attack, awoke particular misgivings-especially when military exercises made it clear that the use of such weapons would kill over a million German civilians and injure several million more. But it has not been developments within Nato that have caused doubts to grow so remarkably during the past few months, but developments outside, affecting the Sword rather than the Shield. The original plan assumed a considerable margin of superiority on the part of the American striking forces over the Russian. For at least five years it has been accepted that the Russians have the capacity to strike at the homeland of the United States; but it has been assumed that their attack could be kept within tolerable proportions, partly by the counterforce capacity of the United States Strategic Air Command, partly by the wide dispersal of American bases which the Soviet Air Force would have to destroy if their own homeland was to escape unacceptable damage, and partly by the air defences of the United States themselves. So although sceptics still wondered whether the United States would ever go to the defence of Western Europe if there was a chance of even one Russian bomber getting through to New York, the preponderance of nuclear power in American hands seemed so overwhelming that the basis of Nato planning appeared on balance to be perfectly sound.

During the last year or so all this has been changed. It has become obvious not only to military specialists but to the whole world that Soviet missile development has far outdistanced

the West; and there is every reason to suppose that this lead is one not only in the development of missiles but in their production as well. The Russians, that is, not only have better missiles than the Americans, but they have considerably more. Nato planners have therefore to face the prospect not only that any American attempt to draw the Sword in defence of Europe would lead to devastating and inescapable retaliation on the United States but that the American Strategic Air Command, dependent as it still is on manned bombers flying from large and vulnerable bases, might be prevented by a Russian pre-emptive strike from ever getting the Sword out of its scabbard. For if the Russians know that any attack on Western Europe would provoke a certain counter-attack by American bombers against Russia, they would naturally attempt to destroy those bombers before they attacked Europe at all.

Period of Readjustment

This position of inferiority is admittedly temporary. At present the Strategic Air Command attempts by wide dispersal and early warnings to reduce to a minimum the probability of any surprise attack achieving complete success. Within a few years it will have at its disposal enough 'hard-based' missiles—that is, either housed in protected subterranean sites or mounted on mobile carriers-to make it impossible for any surprise attack to succeed at all. But until that day arrives not only the Americans but the people of Western Europe are faced with a delicate and dangerous period of readjustment; and what form that readjustment

should take is becoming the subject of keen debate.

The first problem which forces itself upon us concerns the nature of the Shield. If the United States were no longer to intervene to turn any Russian attack on Europe into a global thermonuclear war, the Europeans must either be capable of repelling the attack, or acquire for themselves the capacity to retaliate against the Russian homeland which the Americans would no longer provide. In any case it is highly desirable to provide a stronger Shield: one that is more likely on its own to deter aggression. Can this be obtained by multiplying tactical atomic weapons? The Princeton experts are doubtful. The provision of these weapons to Nato forces has been justified on several grounds. One is that the West cannot match Russian manpower—an argument which is untenable in terms of statistics, whatever it may be in terms of politics. Another is that even though both sides are now equipped with nuclear weapons, on balance they favour the defence; but this is a matter on which military specialists are far from unanimous. A third is that by ensuring that any Russian attack triggers off an atomic war we increase the deterrent to that attack; but since the possibility of keeping such a war limited to the battlefield is generally discounted by official circles on both sides of the Iron Curtain, and since in an un-limited atomic war the Russians would at present enjoy a preponderant advantage, the credibility of this deterrent, which amounts to a willingness on the part of the West to commit suicide, is extremely doubtful.

Deterring Attack with Conventional Weapons

For all these reasons a great deal of expert opinion on both sides of the Atlantic is coming round to the conclusion that an increase in forces armed solely with conventional weapons, which we would have no hesitation about using, will be a far more efficient means of deterring an attack on Europe than reliance on atomic weapons whose use will precipitate a holocaust from which we would emerge, if emerge we did, very much second best.

To produce such forces would be a matter of political rather than of military will-power. They need not be very large. The belief is spreading that with adequate mobility, a high standard of training and weapons improved by a diligent programme of scientific research, a conventional force little larger than the thirty divisions at which Nato now aims might, if supported by adequate trained reserves, provide a defence for Europe at least as convincing as the present posture, and far less dangerous to the future prospects of mankind. A reserve tactical atomic capacity would still be needed to deter the enemy from using his own tactical atomic weapons and to retaliate if he did; but such conventional forces should be capable of performing all the functions for which the troops of Nato are at present organized: to deal with frontier incidents, to distinguish between local probes and deliberate sustained attack, and to fight for long enough to present the aggressor with the choice of abandoning his objectives or achieving them only by a total war in which the use of nuclear weapons could no longer be avoided.

The Princeton experts are almost unanimous in their belief that such forces would provide a tougher, because a more credible, Shield than does the screen of nuclear-armed troops which at present-in theory at least-holds the line in Western Europe. If they are right, no political or economic sacrifice—which might in this country involve the reintroduction of some measure of national service—would be too great for us to attain it. But we would still need a Sword, if only to deter an aggressor from threatening us with his own nuclear capacity. Conventional forces may be the most credible and therefore the best deterrent to aggression, but their credibility depends on the existence, in the background, of a nuclear capacity to hold in check that of the other side. If the nuclear capacity of the United States will no longer suffice for this, then Europe must provide its own. It might, of course, seek the hazardous refuge of neutrality—but it would be a neutrality resembling rather that of Belgium, that hapless strategic highway between contending adversaries, than that of Switzerland, a state which has always reinforced its considerable geographical advantages by unstinting expenditure on weapons, by universal military service, and by the ceaseless study of war.

Sharp Differences among Experts

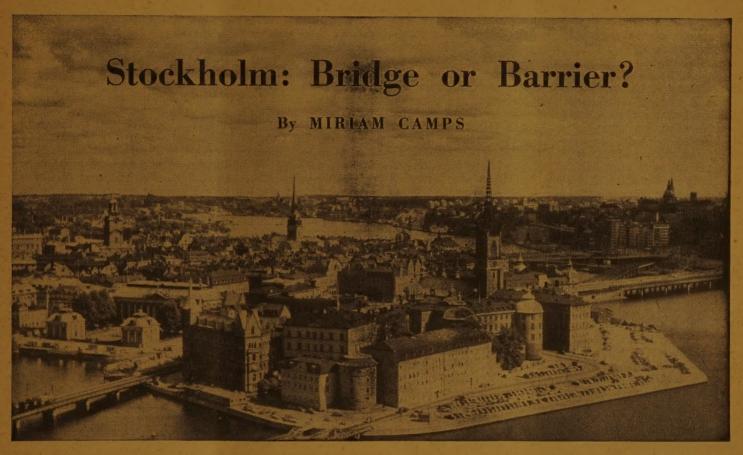
On how Europe could provide this nuclear capacity the experts differ sharply. The difficulty that faces the United States will confront the countries of Europe as well. What country will go to the aid of any other when the consequence—not the risk, but the certain consequence—will be its own annihilation; when the question is not one of fighting for an ally but of dying with him? In logic the only answer seems to lie in every state being provided with, or developing, its own nuclear capacity: 'hard-based' missiles, indestructible by enemy attack, and capable of inflicting certain and substantial damage on a larger enemy; guaranteeing even to the smallest state that large measure of immunity which the hornet derives from its sting. This is the logic which justifies the development of an independent atomic capacity by such powers as Britain and France, and which is likely to lead to a general dissemination of atomic weapons among the increasing number of powers with the scientific and technological capacity to make them.

Whether or no we can regard such a development with equanimity, the result for Nato can hardly be good. When each member relies primarily on its own deterrent for safety, obligations to allies will take a secondary place. The cost of such weapons can be met only by increasing defence expenditure, which requires high political courage when the international skies seem clear, or by saving on conventional forces; which have a strong claim, as we have seen, not to be reduced but to be increased. Already it is the nuclear, or near-nuclear, powers in Europe that find most difficulty in meeting their commitments in conventional forces. If European membership of the nuclear club increased, the task of the Nato authorities is likely to become impossibly difficult; and it is hard to see how the alliance could be saved from disintegrating into a group of independent nuclear powers, each concerned principally with looking after itself.

The alternative is that Nato should develop its own common deterrent: a nuclear capacity to which all member-nations should contribute, which should be sited as strategic considerations might require—in British submarines, in Italian or Norwegian mountains, on French or German railway-trucks—and be subject, as are the conventional forces contributed by Nato members, to the authority of the Supreme Allied Commander. The strategic and economic advantages of such an arrangement speak for themselves; but so do the administrative and political difficulties. To the officials who have grappled with the problem of, for example, persuading all member-states of Nato to adopt a standard type of small-arms ammunition, the project will appear as Utopian as that of immediate and universal disarmament. The existing régime in France has refused its co-operation to far less ambitious projects, while to the British it would appear as an abdication of that sovereignty which alone enables us to retain our Commonwealth links. Yet the idea is gaining currency, and we may expect it soon to become the subject of widespread debate.

Whatever may be the decisions taken in the near future about western defence, it seems clear that an era has ended—an era when the principal decisions about the defence of Europe were taken in Washington; and, as the Princeton volume shows, nobody realizes this more clearly, or is prepared to state it more frankly,

than the Americans themselves. We may within the next few years see the United States and the Russians reaching, and enforcing, a world agreement for the control of nuclear weapons; but if this does not happen, there seems no choice for the nations of Europe except between relying increasingly on independent national deterrents, or pooling their nuclear resources and with them much of their status as sovereign powers. Nato, in short, is likely to play either a much greater or a much smaller part in our lives than it does today.—Third Programme



N Stockholm last month, seven countries (the United Kingdom, Denmark, Norway, Sweden, Austria, Portugal, and Switzerland) initialled a convention establishing the European Free Trade Association.* Tariffs and other barriers to trade among these seven countries will be progressively reduced and virtually eliminated by the end of ten years. This process should stimulate competition and encourage economic expansion within the group; but it is clear that the compelling reason for creating this new Association was not the prospect of this kind of economic advantage but the hope that it would lead to a broader European trading arrangement and, in particular, to an agreement with the six countries of the European Economic Community—France, Germany, Italy, and the three Benelux countries.

Four principal reasons are frequently given for thinking that the organization of 'the Seven' will help bring about a broader European arrangement. First, the new association will hold the Seven together: this will forestall a proliferation of bilateral arrangements and will maximize the bargaining power of the Seven; secondly, it will bring economic pressure on 'the Six' and make them more interested in an agreement; thirdly, it will prove, by example, that a free-trade area, in contrast to a customs union, will work; and, finally, it will open the way to an arrangement between the two groups that clearly respects the integrity of the European Community.

The first point, that the new Association is a means of holding the Seven together seems to me to have been the consideration that weighed most heavily with the British Government. So far as the second point is concerned, I should doubt whether the pressure the new organization brings on the Six would make them readier to negotiate in terms of a free-trade area. To a large extent the pressure comes in the wrong places: on Germany and the Benelux countries who have always been in favour of a wider agreement, rather than on the French who have been opposed. Nevertheless, the sharpening of the already strong Benelux and German interest in a wider arrangement has had two results. It has intensified the strains within the Community. The Dutch and the French, in particular, are now at loggerheads on many questions that have been tied (some relevantly, some purely for bargaining purposes) to the question of a new negotiation. This benefits no one, It has also encouraged the development of a more liberal trade and tariff policy on the part of the Community. This is to be welcomed. But, for various reasons the new 'liberalism' of the Community appears to be leading not in the direction of, but away from, a wider European agreement.

I should also doubt the force of the third argument, that the Six will be readier to accept a free-trade area once it has been demonstrated that such an arrangement can work. The United Kingdom, the preponderant power in the new group, is in a position to exert considerable influence on the development of the free-trade area and to determine, to a large extent, whether much or little is made of any difficulties that may arise from the fact that the countries of the group will not adopt a common tariff (as they would do if they were forming a customs union) but will have different tariffs on their trade with the rest of the world. I should imagine that the sceptics might feel that the fact that a free-trade area could work in this particular case was not convincing proof of what might happen in other situations. I should also question this argument for the more important reason that the basic objections today to a European-wide free-trade area do

not seem to me to rest, to an appreciable extent, on doubts as to

the technical feasibility of such an arrangement.

The last argument, that the establishment of the Seven makes possible arrangements that clearly respect the integrity of the European Community, and the first argument, that the new Association is a means of holding the Seven together, can be considered together. For both of them lead to the key question, that is whether the kind of arrangement in Europe that the Seven apparently have in mind is one that is today acceptable to the Six.

Stacking the Cards?

It seems to me that the formation of the European Free Trade Association tends to stack the cards in favour of the development of certain kinds of arrangement in Europe and against others. By keeping the Seven together it tends to rule out the development of a network of bilateral agreements between the Six and the surrounding countries and, by so doing, it increases the chances of a multilateral settlement. As the negotiations in the Maudling Committee became more difficult the non-Common Market countries tended to draw together but they were not an organized group when the negotiations broke down; and had there been no alternative in sight some of them would probably have decided to negotiate bilaterally with the Six. Denmark was probably the only one of the outer countries that would have gone so far as to join the Common Market; others would have been more likely to seek association agreements with it, as Greece and Turkey are now doing. Some people felt that if nothing were done it was probable that there might soon develop in Europe a new web-like trading pattern based on the Six, at the centre of the web, with ties radiating out to other countries. Such a network of bilateral agreements would have been inherently discriminatory against third countries. And, unless supplemented by an almost inconceivably complicated system of criss-crossing bilateral agreements, it would have tended to increase trade between the other European countries and the Six at the expense of the considerable trade now carried on by the other European countries with one another. The establishment of the Free Trade Association may limit the number of special bilateral agreements to those that Greece and Turkey

are now discussing with the Six.

The Free Trade Association as well as ruling out an undesirable proliferation of bilateral agreements makes possible a new variety of free-trade area, that is a free-trade area link between the customs union of the Six and the free-trade area of the Seven. Under such an arrangement each group could continue to operate its own scheme according to its own rules of procedure; rules governing the freeing of trade between the two groups would have to be agreed but much of the day-to-day enforcement of the rules could be done by each group according to its own

methods.

The Six and the Seven

This idea of a free-trade area link is an ingenious solution to an institutional dilemma. But I feel that the problems in bridge-building that the Free Trade Association may help to solve are tangential issues rather than the fundamental problems that now divide the two groups. If the disagreement between the Six and the rest stemmed from a difference of view as to whether deflections of trade could be adequately controlled by certificates of origin, or from the difficulty of finding an institutional arrangement that would not undercut the powers of the European Commission, the Stockholm Plan might point the way to a solution. Similarly, if the real problem were the need for a better balance in bargaining power between the Six and the other European countries, the Stockholm Plan, by keeping the Seven together and creating some discrimination that could later be bargained away, might open the way to an agreement.

But none of these seem to me to be fundamental difficulties. The basic reason the Maudling Committee negotiations ended in failure was, I think, because there was no real agreement on questions that were essentially political in character: the nature of the European Economic Community and the relationship that should exist between the six and the other countries of Europe. During the last year the political purpose of the Community has

been more widely recognized and accepted both within and outside the Community, but there has been a deepening in the differences of view about the nature of the relationship that should be established between the Six and the other European countries. Although the Stockholm Plan lays the foundation for certain types of bridge to the Six, it seems to me that these are designs that the Community—acting as a group—finds less acceptable today than it might have done a year ago.

There is a wide difference of opinion in the Six Countries on the question of a broader European arrangement. To my mind the most important view to understand, when evaluating the prospects of 'bridge-building', is that of the 'convinced Europeans'. By 'convinced Europeans' I mean those who are consciously constructing a new European entity. The convinced Europeans dominate the Commission intellectually and they have strong allies in each of the member countries. Within the six countries the most outspoken advocates of a European-wide free-trade area are the German and Dutch industrialists and many individuals within the German and Dutch governments. However, these groups are neutralized, to a large extent, by the convinced Europeans; the Germans by Chancellor Adenauer, the Dutch by the convinced Europeans in the Dutch parliament.

The position of the 'Europeans' seems to me to be quite straightforward and understandable: they feel that the Community of the Six is still very fragile and that they have only a limited length of time to make it irreversible. They are, therefore, giving an absolute priority to that task. For the moment they can count on the strong support of Dr. Adenauer, the toleration of General de Gaulle and, not least, a favourable economic situation. Perhaps the clearest lesson of the Coal and Steel Community was that steps towards unity could be painlessly taken in a time of economic expansion but that even a slight recession caused national governments to intervene to halt the process. This constellation of favourable factors is unlikely to last for long, but while it does the Europeans want to push the Community to the point of no return, so that it cannot be unravelled by political change or economic adversity.

A Broader Arrangement

To these Europeans a broader arrangement at the moment is at best a time-consuming distraction, taking the best brains of the Community from the urgent task of implementing the Treaty of Rome. Some of them also see a broader arrangement as a positive threat to their own construction. Let me illustrate one way in which a broader arrangement appears to threaten the development of the Community. Today, somewhat unexpectedly, much of the strongest support for the Common Market comes from industries within the Six. The fact that firms within the area enjoy advantages denied to firms outside the area, and that this advantage is one which will increase as time goes on, is the key factor in the support of business men for the Community. Thus, the very difference in treatment between those on the inside and those on the outside that the Seven wish to see eliminated is the strongest cement holding the Community together.

is the strongest cement holding the Community together.

In these circumstances it seems understandable that the Commission, and others within the Six, are determined to maintain an appreciable difference. Last year the difference in treatment that seemed important, both to those within the Community and to those on the outside, was the difference in quota treatment. Today, as a consequence of their strong balance of payments position, most European countries are removing quotas, and attention now centres on tariffs. Until the Europeans feel the Community is secure, I should be most surprised to see them accept any trade arrangement that fully eliminated the difference in treatment between those who belong to the club and those who do not. I think the Europeans do recognize that the new Community creates economic difficulties for other countries, particularly other European countries, and that they are prepared to go a considerable distance to meet those difficulties by narrowing the difference in treatment, but I should think that they would stop short of eliminating the difference altogether.

Although there are strong 'Europeans' in France, I doubt that General de Gaulle shares their enthusiasm for a community that is supra-national in character. At the moment, however, support

for, at least acquiescence in, the fulfilment of the Treaties of Rome is plainly the price he must pay for German support. Further-more, it is clear that France as the leader of the European Community enjoys far greater prestige in American eyes than would a France that had repudiated the Communities she did so much to create. So far as I can detect, there is today little trace of the French fear of a resurgent Germany that was prevalent during the first years after the war, and no feeling that a close connexion with the United Kingdom is needed to provide balance. On the contrary, it seems to me the French are content with the present situation, for

they now see within their own grasp the leadership of the continent which, until a few years ago, might easily have been Britain's.

In the light of this general situation it does not seem surprising that the Six have found no common policy on the question of a broader association, although they have been trying to do so ever since the breakdown in the O.E.E.C. negotiations a year ago. They are today rather further from agreement among themselves than they were a year ago. Then, there was general acceptance of the idea that some form of broader association was desirable. Today this is questioned by some who feel there need be no middle ground between the Common Market of the Six and broader arrangements-Nato in political terms, the General Agreement on Tariffs and Trade for trade matters. The European Commission, and others, feel that the right approach to the trade problem is to work for a general reduction in trade barriers and for a liberal commercial policy on the part of the Community rather than a European arrangement. This is a view that is bound to be attractive to many countries, particularly the United States, Canada, and some of the other Commonwealth countries. For the short term, I share the view that this is probably the most fruitful course of action. But if I were British, I am not sure that I should accept the thesis that there is no need for a relationship with the Six that is different in kind from the



The initialling of the agreement establishing the European Free Trade Association, in Stockholm on November 20. Seated, left to right, are Mr. M. Petitpierre (Switzerland), Mr. G. Lange (Sweden), and Mr. D. Heathcoat Amory (United Kingdom)

relationship that the Community will have with other countries, even other close allies like Canada and the United States. For the moment, the 'Europeans' are busy building their Community with whatever materials come to hand. If they succeed in taking the Community into the second stage of the transitional period without any major setback, they may become readier than they are today to look at the question of a broader European arrangement. But I think they will be more likely to do so, if the Seven and, in particular, the United Kingdom, can establish in the next few years a rather different impression of their interest in Europe from the im-

pression that prevails today. To many on the continent the Stockholm Plan, rightly or wrongly, appears to be a reaffirmation of Britain's commercial interest in freer trade and a fresh indication of a determination to keep economic arrangements and political commitments in separate, well-insulated compartments.

To the question of whether the Stockholm Plan is a bridge or a barrier, my answer would be that it is neither. It may well have had the desirable, although I imagine unforeseen, result of making the Community more liberal in its external economic policy than it might otherwise have been. It has perhaps raised hopes in the Seven countries that a settlement with the Six could be achieved more quickly than I think is likely to happen, and it may, temporarily, have distracted attention, on both sides of the Channel, from what seems to me to be the central problem, that is the future political and economic relationship between the United Kingdom and the Six. The European Free Trade Association will have certain economic advantages for all its members; and it may make it somewhat easier for some of them to wait for the day when bridge-building can profitably begin again. On the other hand, by appearing to underline the commercial reasons for a broader European arrangement it may well have encouraged the Six to look for the solution to trading difficulties in global rather than European terms.

-Third Programme

1959: a Year of Diplomatic Activity

IT HAS BEEN A YEAR of diplomatic activity so intense and unflagging that one is tempted to say that it can have few if any precedents. The year opened in an atmosphere clouded by recent Russian proposals on Berlin that seemed to threaten the status of the Western Allies there; the protection they afforded to the freedom of the people of West Berlin; and, by implication, the future of Germany and perhaps the security of all Europe, and so the peace of the world. This, at all events, was how the West viewed the proposals although Mr. Khrushchev was at pains to say that he was not presenting an ultimatum. It was from this Russian move that much of the chief diplomatic action of the year stemmed. The outstanding events, probably, were the visits of Mr. Macmillan to Russia and to President Eisenhower in Washington; the many weeks of conference at Geneva between the Foreign Ministers of the United States, Russia, Britain and France, with representatives of the two Germanys in attendance; the agreement between President Eisenhower and Mr. Khrushchev that they would exchange visits; Mr. Khrushchev's visit to the United States: and President Eisenhower's tour of eleven nations which ended just before Christmas.

These, then, were what seem in retrospect to have been the principal events in an attempt to find some way in which East

and West could live in the same world without pressing their differences to the point of war. They may be described, too, as events along the indescribably tortuous road to the summit. For it is to a conference at the summit that the world looks forward as the year ends-a conference of the Heads of Government of the Great Powers, which may settle some at least of the gravest

matters, and prepare the ground for further such conferences.

In the West, the North Atlantic Treaty Organization celebrated its tenth anniversary in April, ironically at a time when there were doubts in many quarters about its solidarity in certain mattersnotably on the question of how far and how fast one could safely and fruitfully go ahead with negotiations with the Russians. Many people have seen danger in what appeared to them to be a slackening of French support for Nato, in apparent disharmony between Britain on the one hand and France and Germany on the other. Differences between the Allies have been threatened in the economic field because of possible rivalries between the six-nation Common Market and the free trade area of the 'outer seven'. Statements about these things, after many meetings and exchanges in various capitals, have given public reassurance without removing all doubt and misgiving.—Home Service

Daniel Counihan, B.B.C. assistant diplomatic correspondent

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Into the Sixties

HE helmeted aeronaut gazing anxiously skyward '—he may be seen on our cover this week-' symbolizes the most stirring prospect of the decade about to begin'. Not everyone will agree with this opinion recently expressed by the Editor-in-Chief of Newsweek. But at least they will accept his view that by 1970 there may be men on the Moon - 'Russian men', this American editor adds sourly, 'unless there's a quick, effective turnabout in our space program'. least is one obvious possibility of the nineteen-sixties. None the less the Earth is likely to remain the centre of our universe and what happens on it to be of the first concern to its inhabitants. We are told on good authority that the standard of living on these islands is likely to rise substantially; that the problem of unemployment has been solved; that medical science may relieve mankind of many of its worst scourges-even cancer. If members of the male sex continue to die in large numbers of coronary thrombosis, that may be because they refuse to neglect the fat of the land and restrain themselves from unnecessary anxieties or take insufficient exercise. The duty will be performed of assisting underdeveloped countries to prosper and the hope will exist that thereby they will be weaned from subversions, assassinations, and political unrest. Finally, we must surely hope that the spirit of statesmanship which appears at present to be suffusing the political leaders of the world will spread to and infect such other leaders as may arise. For it is men and not science that alone can prevent self-immolation.

One cannot fail to reflect, however, as we enter 1960 that the most important need of all in our time is for the raising of educational as well as living standards. The report of the Central Advisory Council for Education (England) which was recently published offers a stimulus for reflection on this subject. Those of us who were young before the war were convinced that the things that really mattered were the solution of the problem of underpopulation; the ending of general unemployment; and the destruction of what we called fascism. We hardly believed that these problems would ever be resolved. Yet they have been.

Today many people are appalled by the ugliness of our existence and the poverty of our tastes. To them it is a matter for wonder why people dress so badly, eat so badly, spend so much of their life on earth reading rubbish and gazing at 'soap operas'. Are we not—or should we not—be brought up in our schools to believe that we must needs embrace the highest when we see it? Yet business tycoons tell us that the voice of the people is the voice of God and that what the majority want is what they deserve to get. If every boy and girl could be given the chance of a longer and better education, would it not then become possible for worth-while standards to be established? No doubt that would mean some reduction in the richness of material living and therefore must be a question of democratic political choice. But at least, as we enter the nineteen-sixties, the question deserves thought.

A series of programmes entitled 'The Sixties' will be broadcast in the Third Programme next year; a selection of the talks will appear in THE LISTENER.

What They Are Saying

Monopolists, madmen, and Macleods

THE COMING MISSION of American, British, and West German bankers to India and Pakistan to survey foreign aid requirements was recently discussed in a commentary, spoken in English from Tashkent, and directed to the two Asian countries. The Soviet broadcaster said:

Our position is not that of unfounded running down of Western assistance. There was a time during the first Soviet five-year plan when our country used foreign credits in the construction of a number of plants. However, the past teaches us to be cautious in regard to such assistance. Foreign private capital demands privileges in the south-east Asian countries. The first of these demands is for free taking out of profits, and payment in foreign currency. According to the Reserve Bank of India, not more than 30 per cent, of the profits of foreign companies remain in the country. In India the oil market is the sole monopoly of the Western oil companies and their share of profits from the sale of oil products amounts to 40 and even 50 per cent.

The Soviet commentator went on to criticize past activities of the West German representative on the bankers' mission, Herr Abs, who was, said the broadcaster, expected to make public certain principles according to which West German banks will finance south-east Asian countries:

It will be recalled that a couple of years ago some information on his principles became known. The matter concerned the socalled charter for protecting private investment abroad. In violation of the U.N. Charter, Herr Abs proposed that an international credit economic blockade be enforced in regard to those countries in Asia and Africa which refused to create a favourable climate for foreign capital investment.

Teheran radio, quoting the Persian press, has been denouncing the Iraqi Prime Minister, General Kassem, because of the claims he has recently put forward to Persian sections of the Shatt al-Arab river:

The man who claims ownership of the territory of the Moon, producing documentary proof in support, is called a madmana man who can harm society. They normally send such a man to hospital and throw him into the dark, secured with chains. Nor do they pay attention to his uproar. They only try to treat him. Yet the, who does more than this and claims ownership of the tentiory and the waters of others—they grant him a government and a citatal. government and a state!

Cairo radio in Swahili has broadcast a 'Kenya Newsletter', in which the white settlers of Kenya were accused of creating division between Africans and Indians, and warned not to persist in the unjustified exile of Jomo Kenyatta. The broadcaster

The whole world is amazed and amused at the manifold intrigues of the Kenya settlers who have reached such a degree of weakness as to choose the brother of the Colonial Secretary and give him the post of organizer of the New Kenya Party. . . . We respectfully say to Mr. Macleod, the Colonial Secretary, that if he is not forthcoming with a plan for the independence of Kenya, then he will not be helping himself, because there is no other plan for Kenya except a native government by 1960.

A Polish home service broadcaster commented on the Western Summit meeting and its outcome on lines which were fairly general from Communist radio stations. Referring to the part of the Western Summit communiqué which mentioned a return to the principles of 1958 - namely the search for German reunification on a basis of freedom and of safeguarding West Berlin -the Polish commentator said:

The essential fact is that Bonn will try to exploit this to prevent any chance of a real agreement. We may be sure that the Adenauer Government will do everything possible to entangle the problem of disarmament and of improvement in East-West relations with what the Chancellor calls the crux of the German problem; and in his view this means the annexation of the German Democratic Republic by the Federal Republic. There is as much chance of witnessing that as of seeing one's own ears, but the Chancellor thinks it will do no harm to cause confusion.

—Based on information collected by the B.B.C. Monitoring Service

DERRICK SINGTON



Suffolk landscape: a windmill at Saxtead Green

1. Allan Cash

Did You Hear That?

REMEMBERING SUMMER IN SUFFOLK

'WHERE I LIVE, in the north of Essex, there is nothing much in the way of rivers and streams', said C. HENRY WARREN in a Home Service talk from the Midlands, 'so, whenever possible during the parched days of last summer, Alec and I used to get in the car and go over the border into Suffolk, exploring the Stour and its tributaries.

One of the features of our drives was the swans. I do not know if any local naturalists' society has made a count of the Stour's swan population this year, but it must be among the highest for any river. Not all the inhabitants of the Stour, however, were birds or even fish. Somewhere in its quieter reaches we found an old farm waggon that had been hauled into the water and left to soak, just as they used to do in the days of the horse, to swell the wood in hot weather. It was a fine old waggon, with chamferings and bold, swinging curves, its paint faded now, but the structure itself as good as ever—after how many years? A hundred? We saw several Suffolk waggons in the course of our jaunts. In a forsaken farmstead, where only a tumble-down barn remained, we found another waggon, among the dirt and cobwebs. The hubs of the wheels were as big as barrels, the rear wheels themselves were over five feet high. It was a quarter-locked waggon, one in which turning is restricted by the unbroken sides of the body: it would probably need a quarter of an acre to get round in. The great body rode like a boat on the stout axles, ready to take the roughest furrows. Such a waggon probably cost no more than £20 when it was built, before the first world war. We wondered what it would cost today, and indeed whether there was a wheelwright left in the whole county who could build one.

'Loaded with corn, such waggons used to take the roads before dawn, rumbling through the countryside on their way to the mills. Every village along the Stour seems to have a mill. Mostly they are empty now. The mill-house has been bought, and done up as a private residence, the great mill-wheel is rusty and broken, and the millstones, likely as not, are used for fancy door-steps. Naturally we sought out these old mills: lolled over the mill-pool to watch the purple-backed swallows dip under the bridge for gnats; dreamed ourselves back to the time when the tall, white, weather-boarded mill throbbed and shook as the roaring water drove the massive gear.

'We happened on one mill that was still working, though the

mill-pool was choked with rushes, and electricity had replaced water-power. The miller came running out to direct us. Sticking his lean, white face through the car window, he told us how the mill had been in his family for generations, and how, when at last they decided to change over to electricity, they had dismantled the stones—French burr they were, the best stone for wheat—and broken them to help make a firm bed for the engine.

Even more than the Stour itself, I think, we liked the Brett and the Box, those two meandering tributaries that flow in from the north. For one thing, they took us into remoter corners of Suffolk: dark, sunken lanes, old pack roads perhaps, where the boughs met overhead and sprinkled sequins of sunlight on the ground, quiet villages huddled round the strong, four-square towers of their churches.

'At a bend of the road by Shelley, where the Brett flows through open meadows, an old house had had its brick front knocked away, revealing the original half-timbered facade, with a fine overhang. Between each pair of studs somebody had incised a wild flower in the plaster, each panel containing a different flower, some three or four feet tall; all were botanically correct, the complete plant—foxgloves, wild rose, bryony, campion, and so on. One of the villages I liked best in the Box valley was Polstead. By the church, which stands almost in the park of the Hall, I had been told there was a gospel oak—one of the few remaining in the country—said to be over 3,000 years old, which probably means no more than that a ritual oak has stood there as far back as inherited memory goes. I hunted for it and found it at last. The old tree had had enough and simply collapsed. All that was left was a jumble of spiky branches, lifeless among the summer grasses. I hope somebody will plant another oak in its place, to keep the tradition alive.

'Polstead proved so agreeable that we came again, later in the year, though the day was still as blue-skied and hot as ever. It was Harvest Festival. As we entered the church porch through a tangle of travellers' joy, a whiff of the mingled scent of flowers and fruits and vegetables greeted us. Seldom have I seen a country church so beautifully decorated. The sun shone on rosy apples in the window ledges, there were banks of michaelmas daisies stacked against the pews and pillars, and, perhaps best of all, the old stone font had sprouted fronds of pampas grass and garlanded itself with red and gold nasturtiums.



Two famous clowns: Grimaldi in the comic pantomime The Golden Fish, 1811—

From: 'Clowns and Pantomimes', by M. Willson Disher (Constable)

'The Sunday villages drowsed in the trees as we drove home from our last excursion into Suffolk. "We shall have to remember all this", said Alec, "when winter comes".

LINKED DOWN THE DECADES

'Samuel Smiles wrote his Self Help a hundred years ago, or rather it was published then', said A. P. RYAN in the General Overseas Service. 'He had actually written it some years earlier than 1859 and, like so many books that sold exceptionally well, it was at first refused by a publisher and then laid for some time on the shelf. Although it is so long since Self Help broke on the world and was an immediate success, the name is still familiar and for most people it still suggests the name of its author. Samuel Smiles and "self help" have gone linked down the decades and are still an unforgotten pair.

'Smiles himself told of the origin of his most famous work. He was asked to deliver an address to the members of an evening class in Leeds. These young men—he tells us that they were, "of the humblest rank"—had come together in the room of a cottage to impart knowledge to one another. This mutual improvement society had spread, so that when Smiles addressed them the young men were 100 strong. Their determination to get on in the world by cultivating all the virtues of diligence, self-discipline, and self-control powerfully impressed Smiles. Their philosophy was his, and out of this encounter grew Self Help which has, as its subtitle: "With illustrations of conduct and perseverance". The secret of why Self Help became a best-seller is to be found in the second word of that sub-title, "illustrations" of conduct. It is the examples of all manner of different men making good that fill the bulk of Self Help and keep its pages to this day fresh and entertaining reading.

'The widely held belief that it is a sort of lay sermon written for an age in which to have made a fortune was regarded as a proof of virtue and to be poor was almost a crime is completely unfounded. Smiles gallops breathlessly along from barbers who had become Lord Chief Justices or landscape painters to all the tailors who had turned into something else, rounding off the list with a President of the United States. This may sound as if Self Help were a monotonous catalogue, but it is not. Smiles had a genius for changing his subject and for introducing good anecdotes on every page. All his examples and all his anecdotes point a moral. Are you given to wasting the odd moments of the day? Then Smiles will tell you of a doctor who translated the Roman poet Lucretius while riding round in his carriage through the streets of London to visit his patients. Smiles would have been ready to lecture the angry young men and women and the "beats" of this generation. Whether they would listen to him as his contemporaries did is another matter. But Self Help was only recently republished, and its sales have been huge—in English,

in most European languages, and in Turkish, Arabic, Indian tongues, and Japanese.

'What a power Smiles had become was given a remarkable illustration when he published the life of an uneducated shoemaker in Scotland who was also a naturalist. This book came out in 1876, and on Christmas Day in that year the shoemaker received from Lord Beaconsfield this letter: "Sir, the Queen has been much interested in reading your biography by Mr. Smiles and is touched by your successful pursuit of natural science under all the cares of daily toil. Her Majesty has been graciously pleased to confer on you a pension of £50 per annum". This must surely be a unique consequence of the publication of a book'.

'THY SERVANTS THE CLOWNS'

Earlier this month, Holy Trinity Church, Dalston, in East London, became the official clowns' church. It was dedicated as such by the Bishop of Stepney, at a ceremony attended by clowns, and with a clown reading the lesson. DAVID WILSON described

the church in 'The Eye-witness' (Home Service). 'Holy Trinity, Dalston', he said, 'is not one of London's famous churches. It was built in the middle of the last century in an area not noted for its elegance or architectural beauty. But it took on a new character when it was dedicated to the world's clowns. In the church is a memorial to Joseph Grimaldi, the most famous of all clowns. By this statue will hang a copy of the clowns' prayer: "O God who has created us with the gift of laughter, we thank Thee for Thy servants the clowns. Grant, we beseech Thee, that as we fool for the sake of all Thy servants, we may become fools for Christ's sake, content to abandon all in Thy service".

'There is a body called the International Circus Clown Club; for some years the club had been meeting at St. James's, Pentonville Road, where Grimaldi was buried, but it had to move. The members wanted another church as their headquarters, and they came to Holy Trinity, Dalston. This church has also offered a home to the club's records and a collection of more than 200 portraits and pictures of clowns and various mementoes of the circus. There are clowns sad and clowns merry, clowns of the nineteenth century and clowns famous on television. There is a print of a clown in a little chariot pulled by dogs. There is even a picture of a Victorian lady clown'.



-and Coco talking to children at Bertram Mills' Circus this month

Patent Rights in Soviet Russia

By A BARRISTER

HE five-year Anglo-Soviet Trade Agreement, signed in Moscow on May 24, 1959, envisages a considerable increase in trade between the two countries. For their part, the Russians are particularly keen to acquire certain kinds of factory equipment and technical 'know-how' from us. Thus Article 3 of the Agreement emphasizes that the Soviet Government expects that its foreign trade organizations will place 'substantial orders' for certain stated types of British machinery and plant; Article 7 provides for the two governments to permit the exchange of industrial and technical information between the organizations and business concerns of their respective countries.

Anxiety about Pirating

On both sides there is some anxiety lest inventions, designs, and 'know-how' should be pirated by the recipient. Fears that the West might steal the fruits of Soviet technology were expressed at the eighth Soviet Chemical Congress last March and reiterated in *Pravda*. The British manufacturer with something new may similarly be apprehensive. He is unlikely to be comforted by Professor Bodkin's assertion in another context that 'theft, as a form of flattery, is far superior to imitation'. The answer to these fears is proper, and properly understood, patent protection, to which must be added binding agreements to safeguard the unpatented confidential 'know-how' which is invariably needed to supplement the bare bones of a patent.

One consequence of the Anglo-Soviet Trade Agreement and the negotiations which led up to it has been a move towards greater understanding of the patent systems in the two countries. Soviet patent experts have been to London to see our system in operation, and some of the very limited experience of British applicants for Soviet patents has been gathered through the trade associations and the Chartered Institute of Patent Agents. We

evidently have much to learn about the Soviet system.

The main reason we know so little of Soviet patent law and practice is that the U.S.S.R. has never belonged to the International Convention for the Protection of Industrial Property. 'Industrial property' in this sense means patent rights, trade marks, trade names, the so-called 'service-marks' of organizations such as transport undertakings and radio stations, indications of source or appellations of origin and the registered designs of textile patterns, packaging and other things, the novelty of which is visual rather than functional. Since its establishment in 1883, the International Convention has drawn into membership all the leading industrial nations except Russia and China. While it does not provide for international patents it does oblige each country of the Union to give legal protection to the rights covered by the Convention. Such protection has to be extended by each member country to the nationals of other member countries on terms equal to those offered to its own nationals. In particular, the Convention enables an applicant for a patent in one member country to wait for a year before applying for patent protection for the same invention in other Convention countries. This is a valuable right, as it enables an inventor to see whether his invention is really worth while before he goes to the considerable expense of protecting it all over the world.

The International Bureau

Member countries are kept informed of the state of industrial property law in each other's countries through the International Bureau run under the supervision of the Swiss Government. The Bureau does valuable liaison work, but it does not take Soviet or Chinese law within its purview. Fortunately, the other principal industrial powers in the Soviet bloc have remained in the Convention. Bulgaria, Czechoslovakia, Hungary, Poland, and Rumania still adhere to it. East Germany purports to belong to the Con-

vention, though she is not recognized in the West as having

sovereign status.

So far as Anglo-Soviet trade is concerned, it can be said that Soviet inventors and manufacturing organizations are free to apply for patent protection here, though they will not have the advantage of the year's grace given to applicants from Convention countries. What of the British applicant for a Soviet patent? Though the Soviet Union does not belong to the Convention she gives foreigners rights equal with Soviet citizens on the basis of reciprocity. The Soviet Invention Law, which came into force on May 1, starts as follows:

In the U.S.S.R. legal protection is given to inventions, discoveries and rationalization proposals by certificates of authorship or patents, for inventions, by diplomas for discoveries and by proofs of authorship for rationalization proposals....

The author of an invention may apply, at his option, for the recognition of his authorship or the recognition of his sole right to exploit the invention. In the first case he will be given a certificate of authorship, in the second, a patent.

Rationalization Prospects

A rationalization proposal is a technical improvement using known means which lacks the degree of originality demanded of a patentable invention. The Soviet idea of a patent corresponds to that with which we are familiar. In return for publication of his idea and the payment of fees to the state, an inventor is granted an exclusive right, or monopoly, to exploit his invention as best he may for a limited period of years. Under Soviet law the period is fifteen years. After that anyone is free to use the invention. During the period the inventor has a monopoly which he may exploit by developing his idea himself or by licensing others to do so. Alternatively, he may sell his patent outright. The theory is that while most monopolies are harmful to the economy, the limited monopoly conferred by a patent is beneficial because it stimulates invention and gives inventors an assurance that the rewards of their labours will not be snatched away if they become public knowledge.

Though patents are still granted in the Soviet Union, it is not difficult to see why an alternative was created for the Soviet inventor. The exploitation of private property for private gain, even for a limited period, is clearly repugnant to Communist philosophy. In fact, the first move after the closing of the Tsarist patent office during the Revolution was a decree signed by Lenin in 1919, providing powers for useful inventions to be declared the property of the Republic. During the reactionary period of the 'new economic policy' which followed, a patent law of 1924 established a thoroughly bourgeois system on the contemporary German model. German influence seems to have remained strong in Soviet patent practice to this day. It may be discerned in the

classification code and the examination system.

The law of 1924 appears to have been designed, at least in part, to tempt foreign investment into the Soviet Union. It was part of the 'new economic policy' to allow private enterprise within certain limits. At that time the Soviet Union concluded several bilateral patent treaties with continental powers, including Italy and Germany, as an alternative to joining the International Convention. Then in 1931 she struck out on her own, with the creation of the certificate of authorship system alongside the patent system proper.

The granting of certificates of authorship constitutes a grandiose national suggestions scheme. Though the Soviet inventor is free to choose whether he will apply for a certificate or a patent he is given every inducement to apply for the certificate. The holder of a certificate stands to receive a fairly substantial monetary award and special privileges, such as a favourable mark in his labour record and extra holidays with pay.

Application for a certificate is apparently free to the Soviet inventor and relatively inexpensive to the foreign applicant. A Soviet patent, in contrast, will cost a British applicant £40 to £65 in application expenses and over £1,000 in renewal fees during its term. This is nearly ten times the cost of a British patent. Under the 1959 law a certificate holder is entitled to a gold medal and is raised to the dignity of 'Meritorious Inventor of the U.S.S.R. The scale of awards, which is based on the 'annual savings' calculated to result from the invention, is from 200 roubles (a little over £17) to 200,000 roubles. Those who make 'rationalization' proposals are given silver medals and a lower scale of remuneration. In a planned economy, recognizing inventions is clearly more practicable than granting exclusive rights.

A Successful Scheme

The scheme of certificate of authorship has proved so successful that it would appear that the Soviet Committee for Inventions and Discoveries now sifts about a million-and-a-half applications every year. According to Mr. Garmashev, the Chairman of the Committee, in the period 1917 to 1958 nearly 40,000,000 proposals for technical improvement and invention were made in the Soviet Union and from these 237,626 were accepted and

registered—some, of course, as patents.

Certificates of authorship and Soviet patents are printed in the same form and issued in a single numerical series. In effect they are very different. The invention which is the subject of a certificate is state property and the author has no control over its use. The Russians have been trying to interest foreign inventors in the scheme for the last few years. It must be judged on its merits. A non-Soviet private individual might find it worth his while to apply for a certificate, but it is difficult to see that any advantage would accrue to a British firm or company unless the Soviet Awards Decree were to be amended so as to offer much more substantial monetary awards, without the medals, holidays, and other inducements which are of interest only to the Soviet citizen. To be of interest to a British manufacturer an award would have to be comparable with the net amount he would expect to receive on the sale of an equivalent patent. But the certificate of author-ship system cannot be lightly dismissed, as it has spread to all the satellites and the People's Republic of China and seems to be the future pattern for industrial property in the Communist world. East Germany is the only exception: she provides as an alternative to the exclusive patent, the 'industrial patent', which is cheaper to obtain but gives the patent owner very limited rights, as anyone may obtain a licence to use the invention from the East German Patent Office.

Consciously or unconsciously, the certificate of authorship system seems to have been modelled on the type of company suggestions scheme common in the West. Both have the same objective: to stimulate invention, while ensuring that the beneficial rights in the results are acquired by the employer. Both use comparable incentives: monetary awards, the achievement of minor fame before one's fellow workers, and enhanced chances of promotion.

System of Interest to Foreigners

The Soviet patent system proper is, on paper, much like any other. In practice it is of interest almost exclusively to foreigners. Of the 443 Soviet patents granted between 1946 and 1956, 442 were granted to foreigners and one to a Soviet citizen. A Soviet patent may be converted into a certificate of authorship, but the

amount of compensation is obscure.

There are no independent patent agents in the Soviet Union. Foreign applicants are obliged to use the services of the Patent Bureau of the All-Union Chamber of Commerce in Moscow. There is also no Patent Office as such. Its place is taken by the Committee for Inventions and Discoveries in the Council of Ministers of the U.S.S.R. This committee has responsibility for promoting and directing all invention and discovery. Its duties are not confined to examining submitted ideas and registering those which are acceptable. The committee is charged to see that registered inventions are put to use in the best interests of the economy. It is responsible also for maintaining a central information bureau on domestic and foreign inventions, running the centres set up to encourage invention in different parts of the Soviet Union, state planning for inventions, drafting legislation and recommending which Soviet inventions should be protected abroad. A Soviet citizen may apply for a foreign patent only with leave of the committee.

Examination of patent applications for novelty is strict, as all British applicants soon discover. The Soviet Union is one of the many countries which refuse to accept applications for ideas that have previously been published anywhere in the world. In the United Kingdom, some Commonwealth countries, and a few others such as Switzerland and Greece, the practice is merely to cite against an application patents and technical writings which have been published, in the sense of being made available to the public, in the country concerned. But the Russians appear to have an effective technical intelligence service. Indeed, a British applicant for a Russian patent is likely to find objection raised from most obscure publications. It appears that in deciding the practicability of an invention, the Committee for Inventions and Discoveries has some assistance from Soviet Technical Ministries. This is entirely logical in a planned economy but it is perhaps disconcerting for the foreign applicant, who finds his test data being scrutinized by a potential competitor.

Appeals against Adverse Decisions

In some cases the claims of the patent application are amended, or even redrawn, by the Committee for Inventions and Discoveries and returned to the applicant with the intimation that the application will be accepted in that form. Such apparently arbitrary treatment is not, however, felt to have been unfair by British applicants who have experienced it. Appeals against adverse decisions appear to be regularly conducted and the Russians have been known to reopen cases even after a 'final' appeal. The stringency of Soviet examination procedure does not appear to be biased against the foreign applicant. One has only to compare the published figures for applications with the figures for certificates and patents issued. Applications from abroad probably fare better, on average, than those from Soviet inventors.

Assuming that a British applicant is successful in obtaining a Soviet patent, what then? Apparently, he is not obliged under present Soviet law to work it, by arranging for manufacture in the U.S.S.R., so he may use the patent merely to protect his export trade by preventing Soviet manufacturing organizations from making use of the invention. Just how far Soviet law will allow this is uncertain. If a manufacturing organization in the U.S.S.R. should infringe a British-owned patent there is no reason to think that the Soviet courts will not consider the claim on its merits, though an American writer, R. S. Hoar, has expressed the view that 'because of intense nationalism a patent held by a non-national is practically worthless in Soviet Russia and its satellites if it is to be enforced against a national of the country in question '*.

A British owner of a Soviet patent may, of course, be able to sell it for a lump sum. He would undoubtedly prefer to license a manufacturing organization to use it in return for royalties. Licensing arrangements with Soviet organizations seem to be rather rare, though the new Invention Law provides for licensing arrangements to be made with foreigners through the Ministry for Foreign Trade in Moscow. All licences have to be registered with the Committee for Inventions and Discoveries.

In the absence of experience, one can merely indicate the special difficulties likely to be encountered. If, for example, royalties are expressed to be payable as a fixed sum per item produced or as a percentage of net annual receipts, what pro-visions will be allowed to enable the patent owner to check returns of production figures or receipts? What would be the incidence on royalties of Soviet taxation? To what extent would provisions for mutual disclosure of improvements in a patented article or process be effective? To what extent would British inspectors be allowed into Soviet factories to check the quality of work being done under a patented process? These are important questions and it is to be hoped that we may learn some of the answers through the as yet rather tenuous contacts which have been established between the British and Soviet patent authorities,

On a long-term view we must hope that the Soviet Union and China will come into the International Convention. This is perfectly feasible in the case of the Soviet Union, which went so far as to send observers to the Lisbon Diplomatic Conference, in October 1958, when the Convention was last under revision. China is a more difficult case, for at the moment she will not permit foreigners to apply for patent protection unless they are resident in the People's Republic. But even there, there is hope. Non-

resident British applicants for trade marks are no longer turned away. The magic word 'reciprocity' has been brought into play. Complete understanding and co-operation between East and

Complete understanding and co-operation between East and West in the protection of industrial property rights will come only with the exercise of much patience, persistence, and goodwill. We cannot expect Communist countries to make possibly radical changes in their industrial property laws merely to gratify the West. All the same, there is some cause for cautious optimism.

-Third Programme

The Ideal Civil Servant?

F. S. NORTHEDGE on Lord Curzon's relationship with Lloyd George

E assume that we understand the relation between knowledge and intuition in politics. Knowledge—that is command of relevant facts and ordering of facts into a pattern from which conclusions may be drawn—is supposed to be the function of the permanent official. He must tell the Minister, in Bagehot's phrase, the facts that live in the office. The politician, for his part, must know the back-

ground of a problem well enough to under-stand what the official is saying to him. But he should also, by an exercise of intuition, know how to grasp the wider drift of affairs. He must assess the strengths and weaknesses of other politicians, at home and abroad. He must sense the trends of popular opinion. These enable him to do what the official cannot do, that is, to put himself at the head of the movements of the day. One thinks, let us say, of the politician raising questions about Central African Federation which might not strike the official mind; or President Eisenhower following his intuition into paths from which a Dulles or a Sherman Adams formerly kept him back. But what happens when

Lord Curzon outside 10 Downing Street, February 1921

two statesmen collaborate, one of whom is the ideal politician and the other the ideal civil servant? There is an illustration of the consequences in the story of Lloyd George and Lord Curzon.

Lloyd George was not only the supreme political manipulator of his time, perhaps of all time. He also had an ingrained distaste for civil servants, especially from the Foreign Office. He was impatient with official papers. His method was to send for the man who knew, who knew the people who knew, or had been on the spot. He felt his way by talking. Curzon was exactly the opposite. He could not converse. Conversation for him was either a viceregal monologue or a battle, challenging him to win. It is no paradox that Curzon was at once a bore and a shining wit. Wit implies triumph rather than sharing, and Curzon was too self-distrustful, too touchy, ever to share. With his obsessive love of detail he would have made a first-class public servant, assuming some deflation of his style. His mind was ordered, his capacity for assimilation and argumentative power immense. But the mark of the born politician, ability to delegate, was never his. He wearied himself with the care for detail which made him an

authority on the East. How often among his letters one comes across some detailed personal question, as, for instance: 'Can you name me a competent solicitor in Basingstoke to represent me in a rather troublesome case with a horse-dealer in the County Court?' How Curzon became a politician at all is a question to be answered in pre-democratic terms. Excellent at the exclusive dinner table, splendid in the Lords, he was never a Commons man.



Mr. Lloyd George when he was attending the Cannes Conference, January 1922

It was the knowledgeability of Curzon that first attracted Lloyd George towards him. The two had had a record of hostility. Curzon belonged to the Eton and Balliol set which Lloyd George hated, and sometimes envied. He had opposed Lloyd George's budget of 1909 and reform of the Lords, Irish Home Rule, votes for women, all of which had Lloyd George's support. Curzon was an imperialist who never doubted that the British Empire was an obligation rather than an acquisition, and he saw in Lloyd George the end of imperial rule as a service, after which it would hardly be worth continuing. Yet Lloyd George made Curzon a member of the War Cabinet of five which he formed when

he became Prime Minister in December 1916. He perceived that Curzon had what he himself and every other politician of the day lacked, an unrivalled knowledge of other countries, especially in the East, knowledge acquired by travel and research. For Lloyd George, Curzon had the factual resources of a civil servant and ability to talk as well. He once told Balfour that he could listen to Curzon for hours, not in admiration, perhaps, but in wonder. Curzon's notion of the function of an aristocracy was unacceptable to Lloyd George's sharp intelligence; but it intrigued him because it was austere, devoted, authentic.

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The two worked well together in the War Cabinet. Curzon was happy to be at the heart of things. The Prime Minister valued him as a willing cart-horse. At times Curzon's loquacity bored everybody, and Lloyd George shut him up in Cabinet, once when the Archbishop of Canterbury was present. Curzon was deeply hurt, but he knew the Prime Minister was indispensable. The Prime Minister's buoyancy in the darkest days of the war endeared him to Curzon. Sinking at the Cabinet table on to his foot-rest and easing his aching back, he felt the warmth of the Chief's

reassurance, day by day. They quarrelled, about Lloyd George's treatment of Sir William Robertson, the Chief of the Imperial General Staff, about the return of Winston Churchill to the

Cabinet in July 1917. But the alliance held.

Curzon was confined to London in charge of the Foreign Office while half its staff went to the Peace Conference in Paris. He knew little or nothing of the doings of the Council of Four. He envied Balfour, the Foreign Secretary, for his ability to saunter into Lloyd George's room in the Rue Nitot at any time. Curzon hated this 'half-and-half' arrangement and thought that when he succeeded Balfour as Foreign Secretary in October 1919 he would be taking over British foreign policy in friendly co-operation with the Prime Minister. But that was not to be. Lloyd George revelled in the historical facts Curzon dug from his rich mind. He let Curzon dazzle French and Italian leaders at the Supreme Council with disquisitions on Armenia or Azerbaijan. Then he would intervene himself with a practical conclusion which served his purpose. The quarrelling went on. Curzon wrote notes of protest, most of which he never sent, until the final scene,

two days before the Carlton Club meeting in October 1922. Curzon tendered his resignation. Lloyd George countered by saying that he would be resigning himself within a

day or two.

There were causes of this most famous of all conflicts between a Prime Minister and his Foreign Secretary. To begin with, Curzon was a vain man. He felt humiliated by the limelight in which Lloyd George moved in the 'summit



Meeting of the Supreme Council in Paris, August 1921. Left to right in the front row are Lord Curzon, Mr. Lloyd George, and M. Briand, the French Prime Minister

diplomacy of the post-war years. Austen Chamberlain, a colleague in the Cabinet with whom Curzon pleaded to use his influence on the Chief, deplored Curzon's tolerance in the face of insult and contempt. But when Chamberlain himself was Foreign Secretary in Baldwin's Government he never knew what it was to be set aside in the main issues of foreign policy. 'Do what you think fit, Austen', so Baldwin told Chamberlain on the eve of the Locarno Conference, 'and we will back you'. On the only occasion when Curzon had anything like that freedom, at the Lausanne Conference, he achieved the climax of his career. But that was under Bonar Law, not Lloyd George.

If Curzon was jealous of Lloyd George, Lloyd George despised Curzon for his readiness, time and again, to reverse his stand when opposition was strong. He knew that, with Curzon, there would be a scene in Cabinet, Curzon would grandly state his case, as though, Lloyd George said, he sat on a golden throne and had to speak accordingly, but in the end he would succumb. The issue of Constantinople, when the abortive treaty of Sèvres with Turkey was in preparation, was a case in point. Curzon believed that the war-time undertaking to drive the Turks from Europe should be fulfilled. He was unimpressed by the talk that this would drive the Moslems in India to revolt. But he found in the Cabinet a formidable opponent in the person of the Secretary of State for India, Edwin Montagu. The battle was fought in Cabinet in January 1920, and Curzon lost. It was Montagu who was asked to draft the British case for the inter-allied conference in London

With extraordinary meanness Lloyd George refused to allow Curzon, his own Foreign Secretary, to see the draft until Hankey, of the Cabinet Secretariat, intervened. But Curzon did not resign. 'Curzon is always sending me his resignation', Lloyd George said, 'but he sends it with a club-footed messenger and then despatches a runner to recall it'. The fact that Curzon used his colleagues to intercede with Lloyd George only increased the Prime Minister's contempt. Austen Chamberlain, Bonar Law, Balfour-all had tried to make him treat Curzon decently. Of

all their intercessions Lloyd George liked Arthur Balfour's best. Balfour would stroll into the Prime Minister's room, examine the pictures on the wall, and casually say: 'What have you been doing to poor Curzon?' After nodding sympathetically at Lloyd George's account of the matter, Balfour would stroll out again, telling Curzon when next he saw him that he had done everything in his power to reform the Prime Minister.

But there is one reason for the quarrel which is not so clear. It has been said by Sir Winston Churchill in his book of character sketches, Great Contemporaries, that Curzon was without the intuitive sense which marks the politician and which the ideal civil servant hardly needs among his mental tools, 'There was never, of course', Sir Winston writes, 'any comparison in weight or forces' between the two men. Lloyd George had the gift which the product of Eton and Balliol lacked—the 'seeing eye', that 'deep original instinct which peers through the surface of words and things—the vision which sees dimly but surely the other side of the wall or which follows the hunt two fields before the throng? Sir Winston Churchill concedes that Curzon had industry, know-

ledge, an ordered mind. but intuition, or insight no. And this lack brought him into cross purposes with Lloyd

George.

It is true that on the only occasion under Lloyd George when Curzon was left alone, with the independence he craved, he failed lamentably. This was in the matter of the unratified treaty with Persia in 1919. While the Peace Conference in Paris was shutting him out, Curzon thought he had brought

off a coup by making Britain Persia's protector. But the Persian Government at first quibbled about ratification until the treaty should have been approved by the Majlis, then made impossible frontier claims, and finally went off to sin with the Russian Bolsheviks. Curzon suffered a miserable defeat on ground of his own choice. But in many other questions his instinct was right. The trouble was that when he failed to get his policy adopted, and when he brilliantly defended the winning cause after his defeat, people supposed that he must have recognized his errors.

There were at least three examples of this in the years between 1916 and 1922, when Curzon was serving under Lloyd George. The first was that of the National Home for the Jews in Palestine embodied in the Balfour Declaration. In his memoirs of the Peace Conference, Lloyd George recites Curzon's arguments in favour of a British foothold on the Palestinian coast. But he barely mentions Curzon's fears of the coming conflict between Jews and Arabs which ultimately defeated the mandate. Others may have had the same fears; Curzon alone voiced them. But, having voiced them,

he desisted, and the legend grew that he had recanted.

Another issue in which Curzon was brusquely swept aside by the Prime Minister, only to be proved right later, was that of the trial of Germany's war leaders. In the heat of war-time emotion Curzon was as much in favour of trying the Kaiser as anyone. But he was one of the first to see reason and climb down. In a letter of rebuke in the summer of 1919 Lloyd George charged him with having fallen under the influence of King George V; he himself, he said, would not retreat at the first obstacle. But, when the difficulties of extracting the ex-Kaiser from Holland and of to mount, Lloyd George did retreat. At the First Conference of London, early in 1920, the minutes of which have now been published, the Prime Minister rehearsed all the cautions against war trials which Curzon had detailed the previous year. He seized on the face-saving device of trial by the Court of Appeal at Leipzig which Curzon himself suggested.

But it was in the matter of the Turkish settlement that Curzon

possessed the 'seeing eye' and Lloyd George was blind. If the Prime Minister's opinion of Curzon had rut fallen so low, the Foreign Secretary's knowledge might have been put to better use. Throughout 1919 Curzon was anxious for an early settlement with Turkey. He saw the Sultan's power falling week by week, and he knew that the enforcement of a moderate settlement by the allies in concert was the best way to defeat extremist forces in Turkey. He mistrusted the reason Lloyd George gave for delaying the settlement, namely the hope that the United States might accept a mandate for Turkey. The Entente Powers, he argued, must grasp the nettle for themselves. Curzon had read his despatches, had seen them mirror the rising of Kemal. Above all, he sensed that the integrity of Anatolia was the tennis-court oath of the Kemalist revolution. He had no confidence in Greece's mission in Anatolia. He rejected Lloyd George's dream of an Asia Minor flowing with milk and honey under European tutelage. Why, writes Lloyd George in his memoirs, did the peacemakers at San Remo in April 1920 proceed with their plans to partition Turkey when Kemal's power was growing? Why indeed? That was the question Curzon asked himself. But, having asked it, he worked, like a civil servant, with the prevailing tide. He lent himself to serve Lloyd George's purposes, through the Chanak crisis of September 1922, through the fall of the Coalition, through to Lausanne where, as he had foreseen as far back as 1919, the unity of Anatolia was imposed upon the allies

What kept Curzon below the level of greatness, what made his life a series of successes rather than a success, was not lack of intuition, but flaws of character which prevented him from exploiting his knowledge to the full. Perhaps the greatest of these was his instinctive sense that in grappling with giants he would in the end be overthrown. After stating his case, he had better submit if he wished to be of further service. Always in his mind was the recollection of his struggle with Kitchener in 1905, when Curzon was Viceroy of India and Kitchener Commander-in-Chief, East Indies. On the issue on which these two fought, the limits of the Viceroy's military powers, history has admitted that Curzon was right, but it was a defeat none the less. In Lloyd George, Curzon seemed to see another, and far greater, Kitchener. He had lost the earlier fight.

He feared he would lose everything if he lost this. Before the clash with Kitchener, Lady Curzon had urged him to leave India while his glory was fresh. He had not taken this advice. He continued to hope that he might enjoy a better outcome in the conflict with Lloyd George. And so he did. Lloyd George fell in October 1922. Curzon went on to his triumph at Lausanne. But the contortions of his character which India had wrought, and not merely the fact that he was in the House of Lords, robbed him of the supreme prize of the premiership when Bonar Law died.

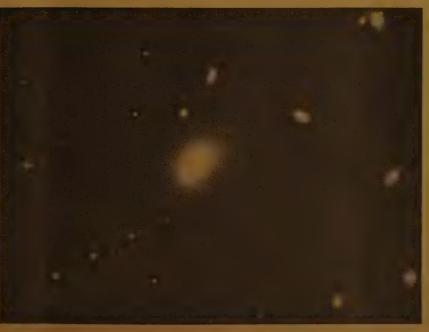
Lloyd George understood Curzon as he understood most politicians of his day. He knew that, provided Curzon had the delights of office, the feeling of sharing in great events, he would do his work. This was intuition, but the knowledge which Curzon might have put at the disposal of British foreign policy in those years Lloyd George frustrated, first by his enjoyment of Curzon's discomfort, secondly by his own instincts, which misled him in the intricacies of the Near East. Reprimanded by Curzon for some slight on the Foreign Office, he would send back a reassurance, and then carry on as before. It was, all over again, the little Welsh urchin bowing out of the magistrate's way, then poaching in his orchard the same night. On the last day of his premiership Lloyd George kept it up. Amusing his office staff with an imaginary interview with his successor, Bonar Law, he declined to accept a seat in the presence of His Royal Pomp, Lord Curzon, on whom he himself had bestowed the marquisate. But Lloyd George's instincts, too, ran against Curzon's knowledge. He had a wild antipathy against the Turks. The Turks, he sarcastically wrote, were gentlemen, hence everything was forgiven to them. In hating the Turks, Lloyd George fought the same aristocratic overlords he sneered at and yet admired in the person of men like Curzon. How could he accept Curzon's knowledge about Turkey when the bearing of it was to come to terms with a nation identified in his mind with Curzon's brood? To expect Curzon's knowledge and Lloyd George's intuition to work together is to suppose that both men were less, or more, than human. Ultimately the personality of Curzon frustrated his learning. Equally, the personality of Lloyd George frustrated his efforts to unite his intuition with Curzon's knowledge.—Third Programme

Peculiar Galaxies

By D. W. DEWHIRST

HE astronomer can regard the universe as a huge physics laboratory. In interstellar space there are large volumes of gas at very low temperatures and at densities much smaller than we can produce in the laboratory; and in the centres of stars thermonuclear reactions proceed freely under conditions of temperature and pressure which are also beyond our practical attainment. One might say that laboratory physics, where the behaviour of matter in small quantities is studied in a strictly limited range of physical conditions, is but one part of astrophysics

The astronomer, however, labours under some



Most of these objects are elliptical galaxies in a cluster. The brightest, with close companions, is NGC 6166, about 300,000,000 light years away: it is an intense source of radio emission

rather serious difficulties that his colleague in the laboratory does not have, and one of them is a difficulty that distinguishes astronomy from all the other sciences. It is that we cannot experiment. The systems we are studying are so far away, and so huge, that we cannot change their conditions: we cannot, for example, test a theory by adding more hydrogen to a star to see how it will react. It is true that in the last year or two we have been able to carry out minor experi-ments just outside the Earth's atmosphere, and we even see the possibility of exploring the Moon and the nearest planets directly. But the universe of stars and

galaxies that is our main concern must lie for ever beyond our reach and intervention. We can only measure and interpret, never interfere.

On a clear night one gets the impression that the stars are countless. In fact there are only about 3,000 individual stars visible to the naked eye, all belonging to our own Galaxy, and most of them relatively close to us in space. But stretching across the sky in a great circle we see also the faint band of the Milky Way, In these directions we are looking out along the central plane of our own lensshaped Galaxy, and seethat compose it,

Roughly speaking there

are two different components of the stars and interstellar material that make up the Galaxy. The interstellar gas and dust, about which Dr. Wilson was talking last week*, are concentrated in a relatively thin layer in the central plane, and extend through the greater part of the diameter of the Galaxy. Associated with this gas and dust are blue super-giant stars—stars considerably bigger and hotter than the Sun. There are other stars as well, including stars like our own Sun and many smaller, fainter ones. But these highly luminous stars are found only in association with interstellar gas and dust. On the other hand the stars that cluster in the central bulge of the Galaxy, and also those that are found some distance from the plane, are on the whole cooler and therefore redder: there are massive stars here too, but none so hot or massive as the blue super-giants.

There are galaxies scattered through the universe as far as our largest telescopes can reach. The nearest large one is beyond the foreground stars of the constellation Andromeda, and is about thirty times the diameter of our own Galaxy away. It is a spiral galaxy, so called because the blue giants and the interstellar material are distributed along arms, lying in the central plane and spiralling outward from the nucleus of the galaxy. Our own Galaxy is also a spiral. The Andromeda galaxy has two very small companion galaxies that are quite different: these are examples of the second main type of galaxy that concerns us, the elliptical galaxies. They have outlines on the sky that are circular or elliptical; in three dimensions their stars occupy a volume shaped like a more or less flattened sphere. They show no internal spiral structure, have little dust, and seem to contain largely the cooler stars like those lying away from the plane of our own Galaxy. And whereas the spiral galaxies seem to be mostly fairly large objects, there is a considerable range of size in the ellipticals—the largest we know are even larger than the spirals, and probably the biggest and most luminous galaxies that exist are ellipticals.

Most of the galaxies are characterized by a certain regularity of shape—spiral, or elliptical. We also know of some that have irregular outlines, like the two Magellanic Clouds which are smaller companions of our own Galaxy, but they seem to contain the same sorts of stars as the other galaxies do

the same sorts of stars as the other galaxies do.

We have also known for a long time that there are a few galaxies that do not fit conveniently into this classification of spirals, ellipticals, and irregulars. These are the 'peculiar' galaxies. Some are clearly the result of close approaches and collisions between galaxies. Others are single and look like spirals, but with their arms wildly distorted and containing interstellar gas at unusually high temperatures. There are elliptical galaxies that show patches of dust, which, as we have seen, is not a normal



ing the unresolved light Galaxy NGC 2623, an example of a 'peculiar' system, with abnormal nucleus and arms; of the millions of stars the forces causing these rare forms are unknown. This galaxy is about half as distant as that compose it.

Photographs: Mount Wilson and Palomar Observatories

feature of ellipticals. And there are groups of two or three or more galaxies so closely packed together and distorted that it is difficult to tell whether we should regard them as separate galaxies or as one.

A few objects that do not fit into an otherwise satisfactory classification are an embarrassment in any branch of science. A colleague of mine has described a collection of photographs of unclassifiable astronomical objects as 'the Chamber of Horrors', and indeed astronomers have tended to put this small number of peculiar galaxies out of sight and out of mind until they learned more about the more numerous normal galaxies. The galaxies constitute the

largest aggregations of matter in the universe. We should evidently like to know their life history: how they are formed and how they evolve.

In our own Galaxy the stars are moving: the stars in the solar neighbourhood make a revolution about the centre of the Galaxy once every 200,000,000 years: other stars have more complicated motions. Clearly, in sufficient time, the galaxies will change their shape. The blue giant stars in the spiral arms cannot be very old by astronomical standards: they are burning their hydrogen so quickly that they can have been in their present state for only a few million years, and we suppose that similar stars are still being formed out of the interstellar material. So the stars in galaxies will change their type, and the interstellar gas will be used up to make more stars.

It is here that we come up against another problem: not peculiar to astronomy, but which faces the astronomer in a particularly acute form. Significant changes in the shape and stellar content of a galaxy take at least a few million years: we have been photographing galaxies for only one-hundred-thousandth part of this time. So we cannot see the changes taking place; we have only a frozen, snapshot view of a changing universe, and must interpret our still photograph as best we can. The biologist studying evolution has a similar problem, but is helped because the fossil record puts his specimens at least approximately in the right order. This is a piece of information the astronomer does not have: it is not immediately obvious which are the young galaxies and which the old ones.

The problem might seem insoluble, but astronomers have now gone quite some way towards solving a similar one: that of the evolution of stars, which seemed equally intractable thirty years ago. One of the lessons learned is that one should not suppose that stars necessarily evolve through the sequence of the types that are most commonly observed in the sky. Suppose a star (or a galaxy) spends a large part of its life in a state A, changes quickly through a state B, and then settles down to spend another long period in a state C. Then at any one moment at which we might look, we shall catch only a very few objects in state B; but this is the important linking state between A and C. You will see now why it might be unwise to ignore the 'peculiar' galaxies: although they represent only a small proportion of all the galaxies we observe, some of them might be an important link in the evolutionary sequence of types.

Interest in peculiar galaxies has been stimulated recently by radio-astronomical observations. It is now about eight years since the first really accurate positions of a few radio sources were measured, and it came as a considerable surprise to everybody to find that some of these positions coincided not with nearby objects

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MORE TRAVEL AND HOLIDAY SUGGESTIONS ON PAGES 1160, 1162, 1164, 1170 & 1177 in our own Galaxy, but with other galaxies, some very distant. The very first galaxies that were discovered to be radio sources were not normal ones, but just these peculiar galaxies—some of them already known objects, others very faint and distant ones that had not been noticed before.

Progress in identifying more galaxies as radio sources has been possible only by the persistence of the radio astronomers in overcoming the very grave difficulties of obtaining really precise positions of the sources. On the photographic survey of the sky recently completed by the National Geographical Society and Palomar Observatory, faint galaxies are so numerous that only a very precise position enables one to say which particular galaxy might be a radio source. In the northern sky most of these very precise positions have been determined by the Mullard Radio Astronomy Observatory of Cambridge University. Last year I was able to look at these positions on the photographs of the Palomar Sky Survey to see what further galaxies could be identi-

After the first discoveries a few years ago it was thought that most of the peculiar galaxies in the sky would turn out to be radio sources. This does not seem to be so: some of the most peculiar galaxies in the sky are apparently not abnormally strong radio emitters. A few are: we think the radio emission arises from the interaction between the interstellar gas contents of two galaxies which are in chance collision. A new discovery has been

that a number of radio sources are elliptical galaxies of a recognizable type: not truly 'peculiar' in being unclassifiable, but unusual in that they are very close pairs or multiple systems of ellipticals, often in larger clusters of twenty or more galaxies. What little information we have suggests that they are all giant systems, including the largest galaxies known. It is interesting that, on entirely different grounds, the Russian astronomer Ambartzumian has singled out similar double elliptical galaxies as being an early and short-lived stage in the formation of groups and clusters of galaxies, which are too numerous to be chance aggregations and must have a common origin. Perhaps it is normal for a giant elliptical galaxy to be a radio source at some stage in its life.

Some talks in this series are tidy accounts of a problem, its investigation, and its solution. This could not be one of them: in so difficult a problem as the evolution of galaxies we may never confidently know the answer. Huygens thought so about such astronomical problems three centuries ago, when he said: 'For my part... I shall count I have done a great Matter, if I can but come to any Knowledge of the Nature of Things as they now are, never troubling myself about their Beginning, or how they were made, knowing that to be out of reach of human Knowledge, or even Conjecture'.

Perhaps Huygens was right. Today we are more ambitious, but in such problems as this we are still only collecting the facts that we have yet to explain.—Network Three

The Grand Tour

By J. H. PLUMB

HROUGHOUT the western world thousands of men and women are striving, scheming, saving to launch themselves on this great journey. The lucky ones do it, piece by piece, year by year, but for many Englishmen and even more Americans it is, as it was for those who first began it—once and for all. When did the Grand Tour begin and why? It started about 1650 as the terrible religious wars that convulsed Europe in the sixteenth and seventeenth centuries eased: Catholic countries no longer seemed a trap for Protestant souls. So well-to-do parents, at first timidly, then confidently, began to risk sending their sons abroad. They did so for a number of reasons.

They had been brought up to admire the traditions of the classical past. It is difficult now for us to grap what a fascination

They had been brought up to admire the traditions of the classical past. It is difficult now for us to grasp what a fascination Greece, and even more Rome, possessed for men of the seventeenth century. The ancient world epitomized taste and valour and breeding. The courtiers of Louis XIV and the writers of Queen Anne's day proudly boasted that theirs was an Augustan age. So what could be more proper, more useful, more instructive than a visit to those countries, and particularly Italy, where the memorials of the Classical Age were still clearly visible. Only by going there could a man grasp the full significance of the precepts and the full beauty of the literature which had been drilled into him from his earliest years. That is what parents thought and what teachers and tutors and moralists told them to think.

They found it easy to believe, because once started the Grand Tour quickly became a mark of caste, less visible than the red dot on a Brahmin's forehead but equally symbolic. The Grand Tour cost an immense amount of money. The young nobleman required tutors, instructors, coaches, horses, houses, fine clothes. His Tour rarely lasted less than three years, sometimes five. He moved in the highest society, and that has never been cheap. Father might have to pay, in modern money, £9,000, £10,000, or £15,000 if he wished his son to do the Tour in the highest style. Only very rich men could afford that, or men who had great possessions to mortgage. In the seventeenth and eighteenth centuries rich men tended to be aristocrats, so the Grand Tour became as much a part of their exclusive world as their titles and honours. It helped to mark them off from the rest of mankind.

There were also some practical reasons why the aristocracy

should adopt this method of teaching their young—especially the aristocracies of England, Germany, and Russia. There were three professions, generally speaking, open to a nobleman: war, diplomacy, and the Church. For the youngest son, destined for the Church, the Grand Tour was no necessity, so he did not go. The others, however, needed it. The art of war, and the skills that went with it—fencing, riding—were taught far better in France than anywhere else. As with war, so with diplomacy. The French diplomatic service was incomparable. And French had become the language of diplomacy. It had become more than that; it had become the language of nobility. By 1750, it was unthinkable for an aristocrat not to be able to speak French fluently. Indeed, the Russians could hardly speak anything else and some found it difficult to talk to their serfs in their own language. So, by 1750, a nobleman had to go to France to learn the language and to master certain professional skills.

These were the sound, solid reasons for travel, but there were far more compelling ones than these. The English in the eighteenth century were very proud but insecure. They knew that an Englishman was, of course, worth ten Frenchmen, but they bought or copied French carpets, tapestries, furniture, china, and pictures. When they first entered French society most of them felt ill at ease, rather raw and provincial. French tailors, French hairdressers, French drawing-masters, and even French cooks could find as much trade in London as in Paris. The French might be effete, decadent, the wretched tools of a despotic monarchy, but they knew and practised the arts of living as no other nation did. Even Dr. Johnson, that rough old bear, felt compelled to change his brown fustian for satin the moment he arrived in Paris. Usually the young nobleman was ravished by the French capital. Naturally he was amply provided with introductions to aristocratic society. Weeks of balls and parties followed his presentation at the French Court, and then there was the sight-seeing and the shopping, particularly the shopping.

Paris was a bazaar of luxurious trifles—gold snuff boxes, brilliantly enamelled, seals of cornelian and agate, porcelain of Sèvres and Mennecy, velvets and silks and damasks of excellent quality; clocks in ormulu and marble; watches in diamonds and pearls; screens and fans and even needle-cases that were works of art. The young nobleman rioted in luxury: never before had

he enjoyed such enticing social life. Here he could find the sophistication that he sought, and learn the canons of polite behaviour—though one should hasten to add that these were, many of them, pretty primitive by our standards. Slap-stick practical jokes, some barbarous, were always in fashion, and no gentleman would think twice about answering the calls of nature in a corner of the corridors at Versailles. Nevertheless only France could give the necessary polish.

But the young nobleman was not encouraged to stay long in Paris. The goal of the Grand Tour was Italy, for, as Dr. Johnson pontificated: 'A man who has not been to Italy is always conscious of an inferiority'. Italy was the land of marvels, the antique shop of Europe. Speculators dug feverishly for Roman marbles and bronzes, and the discoveries at Herculaneum and Pompeii inflamed the imagination still further. All Englishmen were expected to return festooned with works of art and they became dilettanti overnight, talking with assurance of patina and of

significant form. They ransacked palaces, abbeys, and convents, employed spies and informers and were easily, far, far too easily, gulled by fakes. So throughout the century an ever-increasing stream of works of art, good, bad, and indifferent, flowed into

English country houses.

But Italy offered more than art. 'Indeed', to quote Dr. Johnson once more, 'if a young man is wild, and must run after women and bad company, it is better this should be done abroad, as, on his return, he can break off such connexions and begin at home a new man'. Better an Italian countess, Catholic and married, than an English actress, marriageable but impossible. And worldly-wise parents expected their young to lose their hearts in Italy; and that strenuous sight-seeing days would be followed by nights, equally strenuous, of amorous dalliance. This completed the education of the young nobleman abroad. But it was a leisurely finish—Naples for the ruins at Pompeii and of course the opera, and Verona to see the buildings of the architect Palladio whom the English revered (indeed, his style is written boldly across many of England's stately homes), and



'Italy, where the memorials of the Classical Age were still clearly visible': the Temple of Minerva, Rome—a print published in 1769

then Venice for its Carnival, where the mask permitted licence. After one or two years in Italy the long voyage home began. He had left England as a stripling unversed in the arts of life; he returned sophisticated, urbane, and a cognoscenti. His portrait painted by a fashionable artist; one or two pictures of the first rank, sometimes real, more often false, a collection of water-colours, drawings and lithographs; the latest volumes on Pompeii from the royal press of Naples; marbles, bronzes, Genoa velvet and Capo di Monte porcelain that would embellish his state-rooms were packed in their great crates and sent home in a warship for safety's sake. On his way back he usually broke his journey at Paris, where the success of his Grand Tour could be measured by the ease with which he bore himself in the salons.

At home, he joined a magic circle. By turning the conversation to stories of Madame du Deffand whose salon was the most famous in Paris or by the mention of a picture in the palaces of Florence and Rome, or the prices charged by Italian artists, he could quickly get the measure of each new acquaintance and discover whether he belonged to his own aristocratic world. Expensive though the Grand Tour was, it drew more and more into its orbit; indeed, not only the

Grand Tour was, it drew more and more into its orbit; indeed, not only the young and aristocratic, but also in time the middle-aged and the middle class. By the end of the eighteenth century English, Germans, Scandinavians, bourgeois as well as aristocratic, began to swarm to the warm south. It was an Englishman, Philip Thicknesse, who pioneered and popularized the idea of making the Grand Tour cheaply. In 1790 William Wordsworth, the poet, and his friend Robert Jones were, perhaps, the first undergraduates to make the Tour on foot, with their belongings strapped to their backs. As steamships and railways replaced the sailing ship and coach, the swarm became a flood and finally submerged the Grand Tour, but not before it had made its own great contributions to English life.

Its most profound influence was on travel and taste. The foundations upon which has been erected the huge structure of modern European travel came into being to fulfil the needs of the young noblemen on their journeys. These early travellers found and fixed



An engraving by Paul Sandby of the horse race in Rome during the Carnival: one of the fashionable functions attended by young aristocrats making the Grand Tour

By courtesy of the Parker Gallery

upon the playgrounds and health resorts of Europe. They popularized the Swiss Alps through their ascent of Mont Blanc: they recommended the French and Italian Rivieras to their dependent female relations with poor health and short purses. They were ardent sightseers if indifferent linguists, so publishers were quick to provide them with guides in English and phrase-books in French and Italian. Hotels, couriers, foreign exchange facilities, specialized transport to beauty spots, the whole paraphernalia by which aristocrats were housed, fed, transported, and amused provided the framework on which the modern tourist trade could flourish. Even car-hire services possess a long ancestry; a splendid coach-hire service was developed at Calais to cater for the needs of Grand Tourists over 200 years ago.

Yet the greatest influence of the Grand Tour was in stimulating an interest in the visual arts. The national and provincial museums of England, as well as the great country houses such as Woburn or Chatsworth, owe an immeasurable debt to the eighteenth-century nobility. Many men collected out of vanity, some simply because it

was expected of them, a few because of a real passion for painting and sculpture or antiquities; whatever the reason, the result had been to enrich the artistic heritage of this country. The aristoc-



'The Dog Barber': a French character portrayed by the eighteenth-century caricaturist, H. W. Bunbury

British Museum

racy's passion for Italy also drove our native artists to make their pilgrimages to Rome; some, like Joshua Reynolds, in a battleship under the aegis of great patronage; others, like poor Tom Patch, on foot. But they all gained, however they went. As in painting, so in architecture and decoration. From Burlington to Nash, buildings in England were modelled on the great architects of Italy. The neo-Classicism of the Adam brothers is partly derived from the great discoveries of Pompeii. And it was an Englishman, Sir William Hamilton, the husband of Nelson's Emma, who gave them currency by entertaining generations of young noblemen at Naples. Josiah Wedgwood shaped his vases on Pompeian models and called his pottery 'Etruscan'. He spent many years trying to copy one of Hamilton's great purchases—the Portland Vase.

There was scarcely an aspect of artistic life in the eighteenth century that was not permeated by these canons of taste inculcated by the Grand Tour. It may have been a fabulously expensive way to educate a young man, but almost any price is worth paying to

inspire a respect for intellectual and artistic achievement in the ruling class. It had never been achieved before; it has never been achieved since.—Home Service

Next week Dr. Plumb considers Lord Herbert's Grand Tour.

Creative Writing in Modern Ghana

By H. V. L. SWANZY

N many nationalist movements, the writers and artists supplement the politicians—self-expression accompanies self-assertion. But it is not quite like this in Africa. When the South African novelist Peter Abrahams was in the Gold Coast, he was asked what his real work was, apart from writing. Slowly, as independence seeps in, attempts are being made to find a personal literary identity: in the words of Dr. Nkrumah following L. S. Senghor, an African personality.

The problems of the creative writer in modern Ghana are

immense. There are many languages: the widest, Twi, is spoken, or understood, perhaps by 4,000,000 people. There are a few books written in English, on politics, law, customs, and history. But of self-conscious expression for a leisured reading-public there was, until a few years ago, nothing or almost nothing. How could there be in a society still largely tribal, where the

tradition is oral and not written?

In 1955, the local radio system started a short weekly programme, open to all writers in any language so long as there was a translation in English, the lingua-franca. Its harvest was collected in 1958 in a book called Voices of Ghana, which gives the only survey we have of the kinds of writing which are being done in Ghana. Much of it is in the many vernaculars, particularly in Twi, with the themes coming from the oral tradition. There is the Akan drum-language, with the haunting beat, in 'The Awakening', translated by J. H. Nketia:

> I am calling you; they say come. I am learning:

Or another rhythm on the duiker, the little African gazelle, which gives some idea of the beat of Twi:

> Duiker Adawurampon Kwamena Who told the Duiker to get hold of his sword? The tail of the Duiker is short, But he is able to brush himself with it.

There are stories of the savage folk-hero Ananse the Spider, funeral chants, praise songs of heroes like Fair Opoku, or Ataara who set out to set the sea on fire—all still traditional, still dwelling on the scenes and activity of the village. Andrew Opoku, on the Afram river, 'canopied with leaves':

> Noon will bring travellers To crowd my fords.

Or Israel Kafu Hoh, on the Ewe coastline of lagoons:

Glide steadily that we reach home early, Good marketing and fishing vessels. In the twilight is the setting sun. The winds are cold and my pores are sealed.

But much of the writing in Voices of Ghana is different, with the items directly set down in English, and dealing with the bustling, rumbustious life of the town—the office, the car-park with its taxis and mammy-lorries, the night-clubs, like 'Week-end in Havana', raw gobbets of life, without much form or plot, but bursting with vitality. There are also poems that demonstrate the tension of the two worlds, not always so sophisticated as Albert Kayper Mensah's 'Young Freudian'.

Lean and feeble, yet as keen As an old god at its first sheep.

Peter Kwame Buahin belongs to this younger school. 'This is Experience Speaking '* is a humorous, earthy, rueful account of life as it is lived by many young men and women in booming Accra, where the rents are appallingly high. It is written in a pungent English that owes something to Amos Tutuola, the Nigerian author of *The Palm Wine Drinkard*. Peter Kwame Buahin is twenty-eight, the son of an Assin Chief in the Central Region. He was trained at a Roman Catholic seminary in Elmina, and, mixed up with the normal ebullience of Ghanaian English, you may hear some echoes of the Latin he learned from the Fathers. Buahin taught at a secondary school in Accra, but when I last heard he had returned to his home in the country.

This is Experience Speaking

A short story by PETER KWAME BUAHIN

AM a man who always faces facts squarely and is frank even to the extent of being imprudent. I am very short when it pays to be short and I am very tall when it is useful to be tall. 'All weather' is my nickname. I am an intricately complex mixture of all that it pays to be. I am a Bachelor of Arts (B.A., first class honours in ancient and modern Palmwinology), a master of all drinkables except coal-tar, cascara sagrada, and turpentine. I am a man with green blood in my veins and with a more fertile brain than Erasmus's. In a word, therefore, I am a very important person who is now soliloquizing, with a mind in a cloudy puzzlement, to find out why the Government did not make it possible for me to drive in any of the luxuriously modelled and fashioned cars provided for the V.I.P.s during the celebration of our Independence.

I stay at Accra, in a house where lizards and bats and mice enjoy such first-class unharnessed democratic freedom that they freely and easily and impudently spit at and excrete on me, and even go to the sad extent of at times sharing my bed with me. I go out and come to meet them as they carelessly relax on my bed in a bossing attitude. Poor me, how dare I question them? It is just inviting them to multiply their trespasses. What is worse, our desires never harmonize and they, too, are always at logger-

heads, always conflicting and always quarrelling When I feel like taking my siesta, they feel like having sports. If they would allow me to lie on my back quietly, as an I-cannot-help-it spectator, whilst they do the high jumping and the running and the pole vaulting on the field beneath which I sleep, I wouldn't mind because that would mean training me to be more tolerant. But the pity of it all is, they don't. Sometimes the high jumpers miss and the pole falls on me. At other times, too, they themselves lose their equilibrium and fall heavily on me—bruising me with their weight and polluting me with their pungent smell.

Talk I must, and I did question and advise them to have some respect for my age, experience, and learning, by stopping all that rank nonsense. They replied: 'You man, don't encroach upon our rights. You have rented the four corners of the room and we have rented the two sides of the roof—if you don't want the sight of us, and our unavoidable falls on you, then try to separate your four walls from our two sides of the roof by the thickest ceiling your academic degrees can devise—if you fail to do this, our best advice is, don't be silly '

Thus rebutted I humbly approached the landlord with the humility of a tenant and poured forth in a profuse strain the litany of the gross offences committed against me by the mice and the bats and the lizards.

The landlord, who has an epidemic terror for anything that sounds like 'expenditure', was not prepared to embark upon the project of ceiling my room. He suggested that I should rather employ a qualified steward, who could solve the heart-rending situation within a twinkle of an eye. This meant, of course, taxing my economic resources and not his. I had to choose between staying at the old premises and employing a steward whose salary would perpetualize my economic instability; and leaving the house to face that awful problem of finding a room in Accra. I therefore chose the former, and employed a highly recommended and best capacitated steward, Mr. Cat.

In fact, Mr. Cat proved to be efficiency personified. Within just two days the co-tenants at the naked roof had become as dumb and as noiseless as a blank wall and as still as still could be. The slightest self-assertion they displayed meant the loss of their individualities, and the felicitous augmentation of the honourable steward's morsels and capacities. His sharp whiskers were ever on tip-toe, his bright, keen eyes were ever yearning and itching for action. His claws were ever sharp and ready to claw, and to tear to sumptuous morsels any mouse or lizard or bat who ever posed as a pole vaulter or high jumper.

The few that managed to keep their heads by remaining actively passive were very bony. Their skin assumed a supernatural transparency, and their ribs could be counted.

Conditions began to take a happy turn—they grew from worst to worse, and then to bad—and so to good, and from good to better—but, very unfortunately, they never became perfectly vee-shaped. Before I could score the superlative condition of affairs, something very sad happened.

One fine morning, I decided to make Easter Sunday smile with the broad smile of a banquet. I bought a guinea fowl, for a guinea, and sent it to Miss Kind to make it appear at my Easter

I chose Miss Kind because I trusted her cooking capacities. Miss Kind is the Headmistress of Domestic Science in the Amalgamated School. Thus the Sunday arrived, accompanied by the well-toned guinea fowl, gracefully clad in a rich brown swimming jersey and swimming in a delicious pool of sauce, wonderfully seasoned, palatably and sweetly embellished with first-class spices and ingredients.

Every nose that smelt the discharge of the highly scented and sweet odour of the dish was bound to grow wild with uncontrollable anxiety. My teeth began to water, my tongue instinctively began to jump about, and even my eyes could feel, how exactly

I don't know, the most assured palatability of the dish.

I therefore determined to compose a befitting atmosphere for gourmandizing. I left the dish happily resting on the table, and made for the nearest canteen ('Eat All Canteen', it was), to buy 'You are lucky today' wine, to accelerate the already quick flow of my saliva and to heighten my agile appetite. Meanwhile, Mr. Cat the steward was standing faithfully by—watching. Before I left, I asked him to chase away any intruder who might visit my dining-room in my absence. I traversed a distance of seventy-seven yards and still I could smell the sweet scent of my dish. If men were to serve their country with the straightforwardness and the conscientiousness and the anxiety with which I set off to get the 'You are lucky today' we should enjoy such first-class rapidity in our progress that our world would be a social, cultural, and political paradise. I got the bottle and I was on my home trip-I was fifty yards nearer and I did not smell anything. I blew my nose, thinking my nostrils were not clear. And still I did not smell anything. I drew nearer still. This time I breathed in heavily, and still no scent of the sweet dish.

I ran home as fast as my legs could serve me, and there I was—dish and everything gone. If you had been in my shoes, what would you have done? With a voice vibrating with painful disappointment and with a tongue suffering from the pangs of deprivation of such a bonum delectabile, I volleyed questions at my steward. All the answer I got was: 'I found it to be a disturbing intruder, so I chased it out, as you directed me to do'. 'Did I ever say so? And if yes, how can a dish be an intruder?' He replied: 'It filled the place with its unharnessed odour, and

fearing it might pollute the air, I just got rid of it'.

'Good Heavens above; by simply removing it from the table and by keeping it where its odour would not be felt'.

I plucked up hope and quietly asked for the place where the dish had been kept.

'Goodness me, why brood over spilt milk? I have kept it in my stomach', said Mr. Cat.

This is gross misconduct'. I made a very clever move to catch hold of that mighty and saucy steward, and thrash him as mercilessly as I could, to give vent to my anger. But he quickly took to his heels, and I was left without a steward and back

So I decided to leave the house and find a better place to stay. -Third Programme

B.B.C. NEWS HEADLINES

December 22-29

Tuesday, December 22

The World Bank to lend Egypt £20,000,000 for the development of the Suez Canal

An agreement is signed between Britain and Russia on holding reciprocal exhibitions of trade and industry in London and Moscow

Wednesday, December 23

Constitutional reforms, including universal suffrage with a National Assembly modelled on the House of Commons, are recommended in the report of a committee on Uganda set up by the Governor of the Protectorate

Lord Halifax, former Viceroy of India (1926-31) and Foreign Secretary (1938-40) dies, aged seventy-eight

President Eisenhower arrives back in Washington from his tour of eleven countries

Thursday, December 24

The Colonial Secretary returns from his tour of East Africa

The banks say that a record of over £2,250,000,000. in notes has been in circulation this week

Friday, December 25

Mr. Khrushchev agrees to the Western proposals for a series of 'summit' conferences, but suggests two alternative dates for the first one in Paris

A short recorded Christmas message by the Queen is broadcast

Saturday, December 26

In Iraq the trial begins of nearly eighty people charged with plotting to kill General Kassem

Mr. Nelson Rockefeller, Mayor of New York State, announces that he will not stand as a candidate for the United States presidency

Three people lose their lives in gales along Britain's south coast

Sunday, December 27

The Prime Minister completes the membership of the Monckton Commission on Central Africa

Monday, December 28

The French Foreign Minister tells the National Assembly why France feels she cannot co-operate fully with Nato under present conditions

Government of the West German State of North Rhine-Westphalia sets up commission to inquire into anti-semitism in Cologne

Tuesday, December 29

United States decides not to renew the formal ban on atomic tests. Britain will not hold any tests so long as the talks at Geneva continue

Mr. Aneurin Bevan has a major operation in London

A cyclone in the Pacific strikes the New Hebrides islands



Bernard Miles as Long John Silver and John Hall as Jim Hawkins in Treasure Island at the Mermaid Theatre in the City of London

Right: a scene from Mango-Leaf Magic, a play by James Ambrose Brown for the very young, presented together with Mr. Punch at Home, by the English Theatre for Children at the Rudolf Steiner Hall



Peter Pan (Julia Lockwood) teaching the Darling children to fly: a scene from this year's production at the Scala Theatre. Julia Lockwood is the daughter of Margaret Lockwood who has played the part three times





The pantomime Humpty Dumpty at the in the foreground are Alfred Marks as the Harry Secombe as Humpty





The ball scene in the ballet Cinderella at

IDAY ENTERTAINMENTS





Frankie Howerd as the Mad Hatter, Delene Scott as Alice, and Binnie Hale as the Queen of Hearts in Alice in Wonderland, a musical version at the Winter Garden Theatre







d Opera House, Covent Garden, with Margot Fonteyn as Cinderella and Michael Somes as the Harry Corbett with his television characters 'Sooty' and 'Sweep' us ballerinas take the title-role during the ten performances in Sooty's Christmas Party at the Parace (matinées only)





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Thinking in Numbers

The Mu-world By MICHAEL ABERCROMBIE

IVING things cover an enormous range of size. The biggest is about 1,000 million times longer than the smallest, taking one of the giant trees or sea-weeds and a virus as the two extremes. It may seem strange that what may justifiably be called the biologist's unit of length, the micron, more usually called the mu, is right down near the lower end of the enormous size range: a mu is a thousandth of a millimetre, or about a twenty-five-thousandth of an inch, far too small to see with the unaided eye. But this is the result of something that happens continually in science, a steady drive to analyse the big, complex things into different arrangements of small component parts of a few types. By this means we can get the diversity of things into order in terms of the properties of generally distributed small elementary units.

To the Atom and Beyond

The chemist and physicist have for this reason explored their way to the atom and beyond. The biologist has found a small element, the cell, into which to analyse the diversity of living things, and this has proved highly useful, though it is not nearly such a standardized component as the atom. The vast majority of known living things are made up of one or many of these cells. These cells are separate pieces of living material with some basic similarities of internal structure and chemical makeup. Their size is invariably down at the lower end of the range of living sizes, and indeed they are as a rule too small to be seen without some magnifying instrument. It is the microscope, the biologist's characteristic tool, that has enabled lum to push his analysis into the world of cells, the world he measures in mu.

The mu is in origin an arbitrary unit of length. It is merely a millionth of the standard metre kept at Sèvres, which was devised before the mu was ever thought of. It happens to be just about right for the biologist's analysis, for two reasons. First, cell sizes range from a few mu to a few dozens of mu. Secondly, the mu is a length conveniently matched to the best possible performance we can get out of a microscope. At about a fifth of a mu we reach the smallest thing that a microscope can distinguish. One can magnify detail of that size as much as one likes, but it will simply get more blurred: one will never see anything finer-grained. This limit is not a matter of inadequate technique in making microscopes. It arises because when one gets down to sizes round about the wavelength of light, that is about half a mu, one runs into a barrier, which might be called the light barrier, that no microscope working by means of light can break through. Generations of superb skill have gone into the making of microscopes, and they long ago reached the light barrier. So the mu is not only a convenient length for measuring cells, it is a convenient length for the smallest things that can possibly be seen with our standard tool, the microscope.

What is the world of cells, the mu-world, like? The first time one looks at it, using a microscope magnifying, say, about 1,000 times, it seems as utterly incomprehensible as the ordinary world must be to a man just cured of congenital blindness. As we gain our clues to what is what, the mu-world proves to be as full of interesting and beautiful shapes and patterns as any part of nature. It is mostly liquid and jelly, so the shapes are mostly curves. Everything is perhaps a little pale and ghostly: transparency is one of the troubles about seeing living cells properly, and a red blood cell instead of being a blazing disc of scarlet, as one might hope, is a wan yellowish-pink.

Interloper from Another World

There is plenty of movement in and amongst the cells, usually of the gently flowing kind one associates with ghosts, though it is also possible to find vigorous exact rhythmical movement. Here, though, we strike the sort of misjudgment that is bound to happen to an interloper from another world with other standards. We totally misinterpret real speed in the mu-world because distance is magnified by the microscope but time is not. We may see a cell sliding along, slowly but appreciably covering the ground. We forget we have magnified the ground, and it comes as a shock to realize that at that speed it would take a day to move an inch. We have to be careful about transferring our ingrained judgments from one world to another.

None of this is completely outside our normal experience; yet it will not be long before we are aware that this world has a phenomenon that our normal world has not: small particles, any of less than a few mu in diameter, when they are floating freely in liquid, are never still. They jerk and shiver and twist, and the smallest ones positively dance about. This is Brownian movement, named after a botanist; more than a century ago he disproved that the particles were dancing of their own volition because they were alive. A small inhabitant of the mu-world cannot remain still, unless it is embedded in solid, because it is perpetually buffeted by the incessant jostling of the invisibly small molecules which make up the liquid round it. Here then we are down to a size where we can observe, not molecules, because they are far beyond the light barrier, but their direct effects.

The Other Side of the Barrier

The biologist cannot be content to stay this side of the light barrier. By using shorter wavelengths which he cannot see directly himself, mainly by means of the electron microscope, the biologist can get pictures of the other side, though so far only of dead things. He can begin the irresistible process of analysing his own element, the cell, which is really uncomfortably complicated and variable, into simpler and smaller and more standardized parts. But when he goes this far he meets the physicist and chemist in a world of such small dimensions that a new unit of length, the angstrom, takes over from the mu.

Measuring Atoms

By O. R. FRISCH

THE ASTRONOMER has his telescopes and the biologist his microscopes. But even the electronic microscope is no use to the atomic physicist. He is interested in molecules, atoms, and even smaller things. His unit of length—the angstrom—is one ten-thousandth of a mu. It was called Angstrom after a Swedish physicist who first used that unit in his work.

Atoms do not vary much in diameter: they measure between about one angstrom for hydrogen and four angstrom for uranium atoms. But what do we really mean by this? An atom is not a little round ball that we can measure with a pair of calipers; it is more nearly a swarm of electrons round an atomic nucleus. So what do we mean by the size of the atom? We mean that atoms can move past each other with little interaction if their centres are further apart than what we call their diameter, but not if they are appreciably closer. One can measure how far atoms will fly in a straight line in a gas, and we know how many atoms per unit volume the gas contains; from this it is quite simple to calculate how big the atoms must be. Another way is to cool and compress the gas until it condenses into a liquid or solid. It is then difficult to compress any further, so it is reasonable to assume that in solids or liquids the atoms are fairly closely packed together; so again, since we know how many atoms are in a given volume we can calculate their approximate size; and we get much the same answer.

No Accurate Size

I say approximate size because atoms have no accurate size; the swarm of electrons that constitutes the body of an atom has no sharp edge. Even the distance between two atoms in a solid-measured between their centres-is not sharply defined because they oscillate about their average position and only their average distance has an accurate meaning. But that average distance can be measured accurately in those solids where the atoms are arranged in a regular pattern, that is in crystals. Not all crystals are equally perfect; but, for instance, in a diamond the carbon atoms are in rigidly regular rank and file, like the pipe dream of a drill sergeant, row after row, extending through the three dimensions of space; not one atom in a million is out of place! In that case the spacing of the atomic rows can be measured accurately by the diffraction of X-rays.

The method is basically simple and can be illustrated by a simple experiment. Take a fine fabric, say a silk handkerchief, and look through it at a distant street lamp at night. The lamp will appear surrounded by a regular pattern of fuzzy coloured streaks or, if you have picked one of those yellow sodium lamps, by a pattern of fairly sharp dots. Those dots are caused by the diffraction of the light, and their distance apart is proportional to the wavelength of the light divided by the spacing of the threads in your fabric. So from knowing

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MORE TRAVEL AND HOLIDAY SUGGESTIONS ON PAGES 1153, 1160, 1164 1169, 1170 & 1177 the wavelength of the sodium light you can compute the spacing of the threads, even though you cannot see them. In the same way, if you let a fine beam of X-rays pass through a crystal and then on to a photographic plate you will find the spot the beam produces to be surrounded by other spots, and again from their spacing you can work out the accurate distance between the rows of atoms in the crystal. Instead of X-rays you can also use a beam of electrons like the beam in a television tube; such a beam also has wave properties with a convenient wave-length of about one-tenth of an angstrom.

But atoms and their distances in solid matter are not the smallest lengths a physicist has to do with. The atomic nuclei are much smaller still, of the order of one-ten-thousandth of an angstrom. Here again we can use diffraction to help us, but with a difference. Atomic nuclei cannot be packed into dense, regular assemblies, into 'nuclear crystals' as it were. So the diffrac-

tion does not resemble the patterns of dots we see through silk but rather the pattern of rings we occasionally see round the moon on a hazy night. From the size of these rings we can estimate the size of the water droplets in the haze. To get diffraction rings from nuclei we need electrons of very short wavelength, and that means an energy of several hundred million volts. From the appearance of those rings we can draw conclusions not only on the size of the atomic nuclei but also on the diffuseness of their boundary and on the way their electric charge is distributed inside them.

In this way it has been possible to study structures that are measured in units of one-hundred-thousandth of an angstrom. This unit is so much used when we talk about nuclei that it has again been given a separate name; it is called a fermi, after the great Italian physicist Enrico Fermi who—among other things—built the first atomic pile. A uranium nucleus has a diameter of about twenty fermi, a proton

(a hydrogen nucleus) of about three fermi. We are just beginning to distinguish even finer structures: for instance, a kind of dense core inside the proton, of probably barely one fermi in diameter.

Shall we need still smaller units in the future? do not think so. In order to study still finer structures - if they exist - we should need beams of particles of such high energy that they would destroy what we want to study. That may seem the kind of difficulty that can be overcome; but there are reasons to think that for such small distances the laws of physics, as we know them, will break down completely, perhaps even the laws of geometry. When we speak about distances above 1,000 mega-parsec we cannot use ordinary geometry any longer, and indeed are not quite sure what geometry to use; about 40 powers of 10 below, we have the fermi at the other end of the scale; and there we appear to encounter similar uncertainties .- Network Three

Letters to the Editor

The Future of Man

Sir,—May I now try to answer some of the points raised by your correspondence on the Reith Lectures?

I entirely agree with Mr. Silson (December 10) that the care of those who are disabled in body or mind puts a great burden upon society. We indeed buy biological fitness at the cost of economic fitness; perhaps even, as Mr. Silson says, at the cost of military fitness. I can only plead, rather feebly perhaps, that this course seems to me to be the right one. If we abandon it, where shall we draw the line? What fraction of mortality and wastage of life shall we regard as 'natural' and salutary, and what fraction unnatural and a threat to the future of man? Mr. Silson paints far too dark a picture of the future consequences of medical care: we shall not all become colour blind, for example, and there is no evidence that colour blindness is increasing. Of course, it does not do to be cocksure about these very difficult problems. The policy for which I acted as spokesman may be mistaken, but we shall have plenty of time to reconsider it if things look rather bad in two or three hundred years' time; and shall then be far better qualified to put some other policy into

Mr. Gorer (December 17) reproaches me for saying that the effect of inbreeding upon a species (like man) genetically adapted to outbreeding is invariably harmful, and reminds us that a number of non-European communities are not apparently the worse for having practised cross-cousin marriages for many generations. Harmful recessive genes, he concedes, will have been 'bred out' in the past: but 'breating out' is a euphemism for the very thing I had in mind when I said that the consequences of inbreeding were harmful. Inbreeding increases the likelihood that particular damaging genes will come together, in children, in the homozygous state. Some proportion of these genes arise anew in each generation—in the process of mutation; the risk of inbreeding is therefore a continuing one. I think the only difference between Mr.

Gorer's opinion and mine is that he is thinking of the lucky and well-endowed survivors, I of the unfortunates who have to be bred out.

Mr. Gorer objects to my saying: 'Assortative mating will keep Negroes and whites genetically apart in America or South Africa-though we hardly need a geneticist to tell us that'. But then we hardly need an anthropologist to tell us that assortative mating is not absolute—that some degree of intermixture occurs. Any degree of distinctness between Negroes and whites in communities where they are potentially capable of interbreeding is due to the practice of some degree of assortative mating, and the distinction will persist for so long as assortative mating persists. 'It would appear', to Mr. Gorer, 'that Professor Medawar has taken the rules meant to govern marriage in some Western societies as statements of human mating behaviour everywhere'; but in his haste to find fault Mr. Gorer has missed the point. I was not attempting to make generalizations about the mating behaviour of human beings: I was making the point that different mating practices have different genetic consequences, and chose to illustrate it by familiar, everyday examples.

Mr. Hunnings's letter (December 17), is difficult to answer, because the fallacies he refers to appear to be so only because of my lack of skill in explaining difficult arguments simply and in a few words. What I said was actually true, but I wish now I had chosen a different illustration of the way in which the replacement of lost children can increase the frequency of a particular gene. I might have referred to Professor Bentley Glass's demonstration of the way in which the replacement of children lost by haemolytic disease can help to maintain the state of polymorphism on which the occurrence of haemolytic disease depends. The point is a technical one, and of no great general importance; but my purpose was to set out the biological case for and against family limitation, and it would not have been fair to leave it out.

London, W.C.1 Yours, etc.

P. B. MEDAWAR

Sir,—In- his final Reith Lecture (THE LISTENER, December 24) Professor P. B. Medawar states that 'the transfer of information from one generation to the next' is peculiar to man.

This seems to be based on nineteenth-century psychology. Any analysis of mental activity that leaves out the subconscious mind and its peculiar powers of communication by telepathy surely is one that gives a very incomplete picture. The indications are that though telepathy is normally of limited importance in man's means of communication it is an important agency in the transmission of information in various forms of animal life.

Are acquired mental characteristics inherited, at least to some degree? The prolonged research directed by Professor William McDougall seems to establish this. The observations and experiments of various naturalists are also most plausibly explained by such an occurrence.

Quite elaborate patterns of behaviour appear to be inherited. For example, a bird hatched from an egg and having no contacts with any other bird, will, on the proper environmental stimuli, proceed to build a nest. Is this taken to be genetical or non-genetical? It could be explained by telepathy or by the inheritance of acquired characteristics though I believe a far better explanation exists.

Now that psychosomatic effects are accepted as a commonplace in medicine and in psychotherapy can we be sure that such influences cannot possibly extend into the genetical make-up?

It is excellent to have a modern biologist's assurances that pessimism about life and evolution is due to 'bad judgments based upon bad biology'. But a biology that fails to take account of the advances in normal and abnormal psychology and the new branch known as parapsychology may be ignoring an important element in the total field of biology. As evolution has, proceeded then new factors may have emerged. In fact are not the strange parallels between marsupial and mammalian evolution

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possibly significant in this respect, and was Henri Bergson completely wrong in finding that to some degree a creative element has emerged and has affected evolution?—Yours, etc.,

London, W.7 J. GUILFOYLE WILLIAMS

The Message of Christmas

Sir,—In his Christmas message published in THE LISTENER of December 24 the Archbishop of Canterbury told us that he knows 'what it feels like to live in Karachi or Lahore; or in Calcutta; even in Bangkok for an hour or two...'. This is great nonsense. Such short visits can give no 'real impression of places' seen, admittedly, 'at their best' by a V.I.P. Nor can they tell him anything worth while 'of people and how they live'.

I believe that in Indian cities great numbers of people live in the streets; was it of these that the Archbishop has 'golden memories.'? What humbug! I am reminded of a recent cartoon in The New Yorker magazine in which a lady is saying: 'We found the Swiss charming. Of course, we only stopped there to refuel'.

Yours, etc.,

Crowborough

WINSTER

The Machinery Makers

Sir,—Mr. Randall (THE LISTENER, December 3) indicates that '... ten years ago readers of The Machinist and Metalworking Production noted that a Redditch factory was producing intricate, fully automatic lathes at double this rate [one per day at the Ordjonikidze factory, Moscow—S.M.] using line assembly and other techniques...'

The Machinist (March 17, 1951, pages 375-80) reports on the assembly of four models of the Acme-Gridley bar automatic lathe, on one line in a self-contained shop of B.S.A. The rate of production was reported as variable, depending on orders received. In the U.S. machine-tool industry I know of two factories that have also been operating in this way. The point is, however, that in each country these are not the average conditions, and, more important, such factories are not regarded in the machine-tool industry as models to be copied at all possible speed. The latter is the case in the U.S.S.R., and that is what makes the use of mass-production methods in the Russian factories that I described so important.

I see no basis for pride in the claim that massproduction technology had been used in Western industry long before the Soviets took it up. What counts now is the fact that the Soviets are driving to apply mass production to the machinery-making industries, while some of the Western firms in these industries have been trying to stop even a discussion of these trends and their implications.

The conversion of the machine-tool and allied industries from small quantity to mass-production organization clearly involves a host of problems

In September I presented a report to the Director of the European Productivity Agency on the machine-tool industries of Western Europe, including: recommendations for studies to improve efficiency; recommendations for making the problems of raising productivity in these industries into workable problems. The crucial contrast, I fear, is that, while the machine-tool industries of the Soviet sphere are moving ahead

under forced draft, my report has been waiting for four months in the hands of the Machinery Committee of O.E.E.C. for recommendation on publication. Their behaviour will now bear watching.

We could not find reference to a factory in Reddirch. The B.S.A. plant was in Marsten Green, Birmingham. The only file of *The Machinist* that we could find in New York City was incomplete between April 23, 1949, and January 7, 1950.—Yours, etc.,

New York City SEYMOUR MELMAN

Thoughts on Composing

Sir,—Rarely do we hear, and can consider at leisure in your columns (December 10), such wise and fruitful thoughts on music and composition as Mr. Robert Simpson gave us recently on the Third Programme. He not only managed to convey a great deal of the frustration that exists today among listeners, performers, and, indeed, composers, but came forward with a basic and positive ideal which, if properly understood, will lead many towards a more purposeful musical life.

He mentioned a performer who 'maliciously transposed the whole of his part' during a rehearsal recently conducted by the 'blissfully unaware' composer; this is only one of many similar instances, and in this case, I happen to know, the player concerned cares intensely about problems of contemporary music and far from being malicious was giving the composer an opportunity of proving—in an elementary sense—the validity of his musical argument. This—towards a better understanding of what seemed perplexing to a well-versed musical mind.

If the present gulf between composer and listener is to be narrowed such matters should be openly and frequently discussed and preferably with Robert Simpson in the chair.—Yours, etc.,

London, W.2

JOSEPH HOROVITZ

'Space-fiction Music'

Sir,—It was too glib an assumption on the part of Mr. Hilary Corke to dismiss the introductory music of Part II of 'Science International' as 'space-fiction music' (THE LISTENER, December 17). Both this and what your critic referred to as 'delirious electronic jazz' were in fact extracts from Stravinsky's Rite of Spring. Edwin Evans describes the subject of this great ballet score as 'that conflict which is forever rending and tearing, not in order to destroy, but in order to emerge'. The choice of music could, therefore, hardly have been more apt.—Yours, etc.,

London, S.E.19 BERNARD WATSON

John Brown at Harper's Ferry

Sir,—Mr. B. H. Kizer's letter in The Listener of December 24 reflects a point of view which can only be misleading. There had been violent feelings about slavery long before the Harper's Ferry raid. For thirty years prior to the raid, abolitionists had gone up and down the North denouncing slavery in its every form, and stirring the public conscience. The publication of *Uncle Tom's Cabin* in 1852 added further fuel to the flames, as it infuriated both the North and the South, although naturally for reasons diametrically opposed. The U.S. Senate too had been bitterly divided for years, as shown for

example by the scenes which greeted the passing of the Kansas-Nebraska Act in 1854, or the cowardly physical assault in the Senate Chamber on Senator Sumner in 1856.

Finally, there were the widely reported Lincoln Douglas debates of 1858, which did much to clarify Lincoln's position in the mind of the electorate and opened up his way to the Presidency in 1860. Once he had been elected, the South knew where it stood; it was ready to secede and war was inevitable. According to Oswald Garrison Villard, John Brown's biographer: 'When Brown assailed slavery in Virginia, the outlook for abolition was never so hopeful. The "irrepressible conflict" [Lincoln's words] was never so irrepressible, and he who believes there would have been no forcible abolition of slavery had there been no John Brown is singularly shortsighted. The South was on the brink of a volcano the day before the blow at Harper's Ferry, as it was the day after . . . The secession movement was too far under way for any peaceable solution, the minds of too many Southern leaders, besides Governor Wise (the Governor of Virginia) were thoroughly committed to it even before the raid'.

In his famous Coopers Union speech in 1860, Lincoln had this to say about the Harper's Ferry raid: 'That affair in its philosophy, corresponds with the many attempts related in history at the assassination of kings and emperors. An enthusiast broods over the oppression of a people till he fancies himself commissioned by Heaven to liberate them. He ventures the attempt which ends in little else than his own execution. Orsini's attempt on Louis Napoleon and John Brown's attempt at Harper's Ferry were in their philosophy precisely the same'.—Yours, etc.,

London, S.W.11 GEORGE NOORDHOF

'Lifeline' and Hypnosis

Sir,—As one of the 'hypnotic subjects' involved in the programme 'Lifeline', on November 24, which was reviewed by Mr. Hilary Corke in your columns of December 3, I must protest at the impression that 'deep-trance subjects' are in some way weak-willed and therefore 'give a strong impression of holding no very firm opinions in the waking state . . .'

As I understand it from the doctors for whom I do a considerable amount of work as an experimental subject under hypnosis, there is as yet no known correlation between any physical or mental attributes and the ability to be hypnotized into a deep trance. I have been told that the 'suggestibility' of a deep-trance subject can be measured according to methods devised by Professor Eysenck at the Maudsley Hospital. But this seems to be nothing more than measuring the subject's ability to be hypnotized. I would consider the best authorities on hypnosis to be the doctors working on research in this subject—not your critic.

Obviously it would be more interesting to hear Sir Kenneth Clark on art either awake or hypnotized, than to hear me discussing four paintings about which I obviously know very little, although I am very interested in art. But as I understand the unconscious mind, from what I am told by the people I work for, and from my own experience, even Sir Kenneth Clark might hold different views if questioned when he was hypnotized.—Yours, etc.

HYPNOTIC SUBJECT

Nicholas Hawksmoor-'Wren's Man'

By NIKOLAUS PEVSNER

O we have a Hawksmoor* at last. We could have had a Vanbrugh, if Mr. Whistler had chosen to write one instead of two books, and we have Wrens from Mr. Webb's 150 and Sir John Summerson's 160 pages to the twenty volumes of the Wren Society, with Dr. Sekler's book† a serviceable medium. Dr. Sekler is an Austrian, and his point of view is more European than English. Mr. Downes is English-born and English-trained. Yet his book is no less international in its out-

look and has at the same time the advantage of being extremely well written, with an unfailing knack for the right epithet. It is also longer than Dr. Sekler's and contains an appendix of letters and a catalogue of drawings, the former unfortunately not complete, the latter too brief. Neither is the author's fault. To reprint all those letters which had already been published and all those of limited interest, and to have made a proper catalogue raisonné of the drawings would have made a six-guinea into a ten-guinea book, and we wish this new series of architectural monographs edited by Professors Blunt and Wittkower too well to suggest that this would have been a sensible idea.

Hawksmoor is best known for his East End churches, St. Anne Limehouse, St. George-

in-the-East and Christ Church Spitalfields, all three so absurdly monumental for their future congregations, all three so baroque and yet so un-Continentally baroque, and all three, one would think, so unmistakable in their stylistic idiosyncracies. Yet, when it came to surveying the rest of Hawksmoor's oeuvre (except of course for the other two churches, St. George's Bloomsbury, and St. Mary Woolnoth), Mr. Downes found, and others had found before him, that style alone could not guide attributions, that documents were ambiguous, and the handwriting of drawings treacherous.

The situation which he had to cope with, and which recent authors on Wren and Vanbrugh also had to cope with, is that Wren was Surveyor General from 1669 till he was dismissed in 1718, that Hawksmoor joined his office at the age of eighteen in 1679, became his personal clerk, is still called 'Sir Chr. Renn's man' in 1697, though he became Head Clerk at Kensington Palace in 1689 and Clerk of Works at Greenwich Hospital in 1698; and that Vanbrugh, having, at the age of thirty-two and without any preparation, forced himself on the public as a brilliant playwright in 1696, equally suddenly, in 1699, appeared as the selected architect for the grandest English country house

of the time. He made Hawksmoor his assistant at once, and worked with him on the plans for Welbeck in 1702 and Blenheim from 1705 as well. Vanbrugh became Comptroller of Works in 1702, i.e. second in command to Wren; Hawksmoor became Deputy Surveyor at Greenwich in 1705. Who then designed what?

The style of Castle Howard and Blenheim is highly personal, with its 'giant solecisms', to use one of Mr. Downes's terms. Is it Vanbrugh's new conception of dramatic architecture bowling

Easton Neston, Northamptonshire—the north front: an illustration from Hawksmoor
National Buildings Record

Hawksmoor over at once, or is it Hawksmoor's new modified version of the late style of Sir Christopher? Psychological evidence points in the former direction, philological, i.e. the testimony of the drawings, so strongly in the latter that Mr. Whistler, while writing his second book on Vanbrugh, became its protagonist. Mr. Downes follows him with plenty of new, carefully weighed arguments. Yet one remains puzzled. It is true that Swift in 1706 speaks of Van's Genius without Thought or Lecture' that Hawksmoor in a disgruntled moment said that at the start of Blenheim 'they could not stir an Inch' without him, and that Vanbrugh himself fully appreciated Hawksmoor's genius, or else he could not have written: 'Poor Hawksmoor, what a Barbarous Age have his fine ingenious parts fallen into. What would Monsr. Colbert in France have given for such a man'. It is also true that Hawksmoor was a modest man, and Vanbrugh tended to be flamboyant in his claims. If the narrowly Palladian Sir Thomas Robinson admitted that he 'never talked to a more reasonable man' than Hawksmoor and one so little prejudiced in favour of his own performances', that sounds indeed as if he may have been satisfied for years to provide not only execution but also ideas for others without

boasting. On the other hand Hawksmoor himself said of Blenheim that he felt towards the house 'like a loving Nurse that almost thinks the Child her own', and this one may ultimately accept as the whole truth.

The problem of Wren and Hawksmoor is similar, and here the solution may be that Wren, who was a kindly man—Vanbrugh said that, when he was offered the successorship of the dismissed Wren in 1718, he did not accept it 'out of Tenderness for Sir Chr. Wren'—helped

Hawksmoor on as best he could and actually put a first big independent job into the young man's way-Easton Neston. This was completed when Hawksmoor was forty, and is one of the most accomplished houses in England and one which, though baroque, is yet surprisingly free of the Brobdignagian qualities of Blenheim. Wren himself was moving towards the baroque and in the designs of 1698 for Whitehall he came very close to Hawksmoor's manner. If these represent Wren unaided, as for so central a royal job one must assume they do, then they introduce a Wren who could well have served as a model for Hawksmoor's most Hawksmoorian style. But in spite of this the Wren-Vanbrugh contrast must have been felt strongly at the time. Lord Aylesbury writes that he was

tempted to tell the Duke of Marlborough he might just as well have made Wren Poet Laureate as Vanbrugh his architect, and the Duchess of Marlborough went to Wren for her town-house to have it made 'strong plain and convenient' and not like Blenheim. In fact it does look as if Wren did not like Blenheim. The Duchess at least quotes a letter from the 'poor old man' in which he asked to be excused from a visit to Blenheim and ended by saying that 'after a great expense of wit and money... it would not be liked'.

But Hawksmoor he did like, and even the formidable Duchess must have liked him; for she wrote him a letter of recommendation in 1715 praising his 'great modesty and great honesty', and she used him again at Blenheim. Is it because he was not dogmatic, not a man who worked in modules, but one who allowed himself an empirical procedure and was ready to discuss and collaborate and change?

It is a pleasure to read of Hawksmoor's style and the churches which 'fascinate the eye and disturb the memory'. Mr. Downes's is a first book by a young scholar. His maturity is astounding, his command of his material impeccable, and his precision rare in architectural writing.

* Hawksmoor. By Kerry Downes. Zwemmer. £6 6s. † Wren and his Place in European Architecture. By Eduard Sekler. Faber. £3 3s. Reviewed in The LISTENER, July 12, 1956

The Listener's Book Chronicle

The Phenomenon of Man. By Pierre Teilhard de Chardin. With an Introduction by Sir Julian Huxley. Collins. 25s.

Reviewed by E. O. JAMES

This is not an easy book to read or to review, still less to translate as successfully as Bernard Wall and those who have collaborated with him have rendered the author's style and nomenclature into intelligible English. It is, however, the work of a most remarkable man and profound thinker. It is therefore well worth making a special effort to grapple with its involved thought and terminology. Like that of Whitehead, not only is Père Teilhard's philosophy intrinsically difficult to grasp but the language employed is often of his own devising; he coins words such as noogenesis to mean a gradual evolution of mind or mental properties, hominisation to denote the process by which the protohuman stock became, or is becoming, more truly human, and noosphere to express the sphere of mind superimposed on the sphere of life producing hominisation. The translators have wisely left these 'neologisms' as they appear in the original text, and in his illuminating introduction Sir Julian Huxley has given an admirable summary of Père Teilhard de Chardin's general thesis and its most important conclusions, which should render the main contentions reasonably

This obscurity is most apparent in the more abstract reasoning and in the mystical sections of the book. In his own field as a palaeontologist and prehistorian of repute Teilhard is readable and informative as well as provocative. As a fully professed member of the Society of Jesus, with its exacting mental discipline, he brought to his scientific investigations a highly trained mind which enabled him to make his notable contributions to our knowledge of early man in China, and to geological and biological research, chiefly in the sphere of palaeontology. It was, indeed, because he and Sir Julian were working on much the same lines independently that their intimate friendship and co-operation became established in later years.

That his ecclesiastical superiors regarded with suspicion the theological implications of his interpretation of the evolutionary process, and eventually refused to sanction their publication, is hardly surprising. But whatever view may be taken about this, what cannot be condoned is that he was not permitted to become a candidate for the Chair of prehistoric archaeology in the Collège de France, for which he was so eminently qualified, on the resignation of the Abbé Breuil in 1948. Nevertheless, his work received recognition in his election to membership of the Institute, and in becoming an officer of the Legion d'Honneur, and other marks of distinction, before he went to the Wenner-Gren Foundation in New York in 1951, where he spent the last four years of his life.

The present posthumously published volume is his most important work. Starting from his

basic assumption that mankind in its totality is a phenomenon to be described and analysed scientifically like any other phenomenon, Père Teilhard proceeds to a demonstration of the nature, place and function of the human organism in the evolutionary process, and of evolution itself as a process of becoming culminating in self-consciousness as a new mode of thought manifest in the conception of personality. Evolution, it is maintained, has a 'direction' ever moving towards the emergence of intelligence which finds its goal in man. At the human level alone—in 'the hominisation of the individual', as he would say-is reflection realized in a strictly intelligent being, and 'intelligence is the evolutionary lot proper to man and to man only'. The Phenomenon of Man, therefore, is a study of unique value alike for science, metaphysics and theology, and in the book, which claims to be primarily a scientific treatise, the whole phenomenon is investigated within the framework of the evolutionary process.

In the concluding chapters, however, the discussion is carried into the realms of a higher mysticism beyond the conditions of time and space, in which the universe is conceived as fulfilling itself in a synthesis of centres with God as the Omega, the Centre of centres, in a manner not far removed from the pantheistic speculations of Spinoza. To reconcile his position with the Christian attitude to evil and its doctrine of redemption is not easy, and the treatment of this aspect of the subject at the end of this book is too slight to be enlightening or convincing. But now that death has lifted the ban on the publication of the more controversial and principal works of this original thinker, it is to be hoped that they will become accessible and receive the attention they so richly merit.

Storm Bird. By Edward Grierson. Chatto and Windus. 25s.

The sub-title is 'The Strange Life of Georgina Weldon'. Strange indeed. Georgina (1837-1913), born well-to-do in England, of partly Welsh and partly Scottish origins, made a runaway match in 1860 with a young cavalryman, Harry Weldon. After a few years of fond connubial bliss, Georgina's restless wildness drove her from a cottage in Anglesey to London. Nothing, it seems, could have tamed her, and it looks as if frustrated maternity lent her great impetus. Mr. Grierson speaks of her 'searing energy' and vanity and her 'infinite capacity for self-deception'. She was 'born to chaos' and 'her whole life was passed in combat'.

Having ability as a singer, advanced ideas about the technique of singing, and a longing to teach the young to sing, she set up a crazy kind of orphanage in London, got her husband appointed Rouge Dragon Pursuivant, and then became deeply involved with Gounod. A refugee from the Franco-Prussian War, he was then fifty-three; she was thirty-three, and 'one of those women whose emotions are much more passionate than their actions'. Here, for example, is a little scene with the score of Gounod's *Polyeucte*:

I threw myself on Gounod with all my weight; I knocked him down; I rolled on him; we tussled violently for possession of the treasure. I tore it from him; I flung it on the sofa . . . I sat upon it and screamed 'You shall kill me first, but you shall not burn Polyeucte!' My strength gave way, I burst into sobs, I stretched out my arms to him—'My old man! My old treasure! Why are you so wicked to me?'.

This was, evidently, a love scene between two persons with differing aims in love. Differing aims were Georgina's speciality, and she left sixty-five packing-cases of books and papers to explain them.

Mr. Grierson has heroically grappled with them, and has evolved an account, half horrifying, half hilarious, of one of the prize eccentrics of an eccentric time. It is not in the least surprising that she got herself into jail; only her own courage and energy kept her out of the madhouse. Real horror is aroused by the descriptions of Victorian proceedings in regard to real or alleged lunacy. A crank, a nuisance, a crackpot, a prey to rascality, an idealist, with wasps as well as bees in her bonnet, Georgina had outstanding courage and abilities. In her forties she began having writs served upon her enemies; they were as profuse as confetti; seventeen were out at once. Conducting her own cases, she made her cross-examinations 'works of art', and can even be called 'the most effective woman advocate before the coming of the professional'. Her notoriety expanded into a deserved popularity: her fearlessness led directly to the reform of the lunacy laws. Her later years were a tangle of spiritualism, apiculture, and the championing of under dogs, but her voice ('la voix des deux sexes', as Gounod called it) had not resounded in vain. In this entertaining biography Mr. Grierson has brought her to life, this turbulent and extraordinary woman, careering madly along, with method in her madness, among the cross-currents of Victorian social life, of which the oddity seems inexhaustible.

WILLIAM PLOMER

Thomas Cromwell and the English Reformation. By A. G. Dickens. English Universities Press. 10s. 6d.

This little book packs a heavyweight's punch. Few great English statesmen have suffered the neglect and obloquy which have been Thomas Cromwell's lot; the standing verdict on him has been delivered by a variety of enemies ranging through the religious spectrum and including those who have wanted to exculpate Henry VIII. If reason and sense could be trusted to do the work, Professor Dickens would put an end to these false judgments. He concentrates—as the 'Teach Yourself History' series, in which his book appears, demands—on Cromwell's work in bringing about the English Reformation, but though he has to exclude much else he is thereby enabled to demonstrate the overwhelmingly constructive power of Cromwell's mind and to trace the principles which underlay his actions.

Thus we get the true Cromwell: the man of vision singularly gifted with the ability to put that vision into effect. The vision, which en-

braced the self-sufficient secular state designed to do justice to all its members and to subordinate the Church to the needs of the generality, may not find general approval; but that is hardly material. The Cromwell who promoted the English Bible and rested sovereignty in the king-in-Parliament had less difficulty than his critics in distinguishing between the true claims of religion and the false claims of the clergy.

Though Professor Dickens maintains that there is much else to tell and that he has left room for a large-scale biography, he has got more into his circumscribed 185 pages than one would have thought possible. Among the digressions demanded by the need to remove error, his narrative maintains a splendid lucidity and verve; he effectively abolishes a good many points in what he rightly calls the 'black legend' and indicates the unbelievable reach of a minister among whose lesser occupations in a bare eight years of power were great schemes of administrative and economic reform. After this, only bigotry can cling unflinchingly to the lies of the ages.

G. R. ELTON

The Valois Tapestries. By Frances Yates. The Warburg Institute. £3 10s.

Many visitors to the Uffizi, even those with no particular interest in tapestries, must have paused in front of the eight huge hangings of the so-called 'Valois' series, for they have a peculiarly haunting quality. In the foreground stand life-sized figures, several of them readily identifiable even to the least historically minded visitor, as portraits of Catherine de' Medici and her family. While these Valois princes and princesses gaze enigmatically at the spectator, a remarkable series of court festivals and masquerades is taking place in the background behind them, festivals in which they appear to be taking no part and little interest.

The tapestries seem to have been given by Catherine de' Medici herself to her granddaughter Christina of Lorraine, wife of the Grand Duke Ferdinand I of Tuscany. Beyond that nothing definite is recorded about their origin or history. It is not known who designed or executed them, nor even in what factory they were woven. Some thirty years ago that indefatigable iconologist Aby Warburg pointed out the close resemblance of two of the background scenes to the printed descriptions of certain court festivities given by Catherine. More recently the discovery in London and Edinburgh of a series of drawings by Antoine Caron closely related to the festivities in the tapestries has reawakened interest in their meaning, and several not altogether satisfying attempts to explain their meaning have been made.

In this book Miss Yates succeeds in identifying completely convincingly the particular festivities alluded to in the tapestries as well as the majority of the figures appearing in the foregrounds. More tentatively she proposes Lucas de Heere as their designer and Joos van Herseel's factory at Brussels as the place where they were woven. From this she goes on to argue that they must have been executed in or about 1581 for William the Silent as an act of political policy. Her suggestion, cogently argued, is that the tapestries were presented by William to Catherine de' Medici as visual propaganda. They were, in fact, intended to

enlist the support of the Queen Mother and of France for the policy by which he hoped to overthrow the hated Spanish yoke in the Netherlands and establish in its place a rule equally tolerant of Catholic and Protestant under the leadership of Catherine's youngest son, the duc d'Anjou, whom he invited to Antwerp in 1582 and personally invested as Duke of Brabant. This interpretation will not seem far-fetched when it is recalled that the tapestries were addressed to a woman who had developed the masquerade, the ballet, and the tournament so that they became the highest artistic achievement of the Valois court and had herself used some of the festivities actually alluded to in the tapestries as an instrument of her own policy of greater tolerance for Catholic and Protestant.

The tragic dénouement of Miss Yates's fascinating detective story was, of course, that Anjou himself betrayed the trust that William the Silent had placed in him. A typical Valois of highly neurotic character, intellectual, vain, ambitious and untrustworthy, he and his French troops suddenly fell on the Protestants of Antwerp on a January night in 1583 in a way which all too bitterly recalled the hideous Massacre of St. Bartholomew of eleven years before. Thus, even before the weaving of the tapestries can have been complete, the policy they were intended to further had collapsed, rendering totally nugatory the meaning which Miss Yates (using the iconographical methods of interpretation for which the Warburg Institute is famous) has read into the Valois tapestries with such a perceptive wealth of learning.

F. J. B. WATSON

The Memoirs of Lord Woolton Cassell. 30s.

Lord Woolton's life is certainly remarkable enough to justify the slight but unmistakable air of self-satisfaction with which he surveys it in his memoirs. Beginning as a social worker in Liverpool, with a somewhat academic background, he was an early convert to Fabian socialism and was obsessed by the problem of poverty. In the first world war poor health kept him out of the army and he became Civilian Controller of boots. During the aftermath of the war he came to the conclusion—not a highly original one—that the key to the future of industry lay in better relations between employer and employee.

'If I put your ideas into practice', said a business man whom he knew, 'and they failed, you would be sorry; but I should have lost my money'. This, Lord Woolton tells us, was a turning point in his career. He saw that his principles would receive attention only if they paid dividends; and here came his originality and his genius, for, while his socialist friends planned Utopias, he made his enlightened views of labour relations pay dividends on a huge scale. Abandoning his notion of becoming a professor of sociology he accepted an offer to join Lewis's Stores. The proprietors courageously gave him his head. He lost them a quarter of a million in the first three months, but by the end of the year the firm's profits had broken all records.

His achievements since then are well known. His brilliant success as Minister of Food made him a national figure in the second world war. His equally brilliant success in reorganizing the Conservative Party machine, which needed it far more than Lewis's ever did, kept him in the forefront of politics in the post-war decade. What is less well known is that he only joined the party after the news of the débâcle of 1945 was out—a gesture which greatly touched Sir Winston Churchill. It is clear that Lord Woolton's brand of cautious reformist Conservatism had little in common with the reckless swash-buckling of his leader, but it is to Sir Winston's credit that he left the management of the 1950 and 1951 elections to Lord Woolton. So did Sir Anthony Eden in 1955. The results speak for themselves.

It cannot be said that these memoirs are elegantly written, nor are they always accurate. It is surprising to find Lord Woolton, of all people, in a context which excludes the possibility of a misprint, asserting twice that one of the main targets of Conservative attack during February 1950 was the mishandling of the Persian crisis by Mr. Herbert Morrison (as he then was). In fact, of course, this episode did not occur till summer 1951.

But these are minor defects. The book is easy to read, full of amusing anecdotes and many sensible observations on politics. Many a minister must feel the wisdom of Lord Woolton's opinion on Royal Commissions, viz., that it is nearly always a mistake to appoint one; and many an M.P. will support his views on legislation, viz., that there is far too much of it. Above all else Lord Woolton emerges as a kindly figure with a strong social conscience, deeply anxious to help his fellow men but at the same time a thorough realist. If the problem of poverty no longer exists as it did in his youth, its disappearance has been much aided by Lord Woolton and enlightened business men of his outlook. His political movement from Fabianism to Conservatism needs to be studied by all who seek to diagnose the failure of the left in the post-war

ROBERT BLAKE

The Great Wall of France: The Triumph of the Maginot Line. By Vivian Rowe. Putnam. 30s.

Mr. Rowe's book emphasizes two points which, though far from being in any way novel, were probably worth re-stating. The first is that the Maginot Line, after much argument dating back to 1919, was created exclusively to protect Alsace and Lorraine against a direct German attack in circumstances in which it had to be assumed that France would be fighting without British support and in which it could be assumed that Germany would wish to respect the neutrality of Belgium. Subsequent extensions to the Line, to the south and to the north-west, were departures from the original conception, brought about by changes in the political situation after 1930; and that to the north-west never incorporated the Belgian frontier and was never intended to. His second point is that the Line as originally conceived was extremely well built. When it was turned in 1940 by the surprise German invasion through the Ardennes, and attacked from the rear, it held out without French Government's decision to seek an armistice. In the course of making the second point he provides a useful survey of what is

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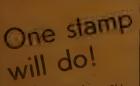
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MORE TRAVEL AND HOLIDAY SUGGESTIONS ON PAGES 1153, 1160, 1162 , 1164, 1169 & 1177 known about the technical aspects of the Line, its construction and its armament system.

Unfortunately, these points, and all the technical information, could have been set down adequately in the space of a magazine article; and in order-to get the statement of them to book-length Mr. Rowe has padded it out with much material that is easily accessible, and better

handled, in many other books. His first point is elaborated into a pedestrian re-hash of French politics and of the international situation between the two world wars. In order to establish his second point he gives us a detailed day-to-day account of the whole Battle of France which, though less journalistic that the first half of the book, still does no more than sum-

marize earlier accounts with which all who are likely to be interested in his subject will already be familiar.

The spate of popular books on the second world war is bound to stop sometime. This latest contribution strongly suggests that we are getting near the turn of the tide.

F. H. HINSLEY

New Novels

Homo Faber. By Max Frisch. Abelard-Schuman. 15s.
The Sea Change. By Elizabeth Jane Howard. Jonathan Cape. 18s.
Sacrilege in Malaya. By Pierre Boulle. Secker and Warburg. 18s.
The Day's End. By Pamela Bright. MacGibbon and Kee. 15s.

A THIN FORTNIGHT: Not the best novel, perhaps, but the one that most needs placing, is the Swiss novelist Max Frisch's parable about technological man. Its hero, the engineer or homo faber, regards emotions as 'fatigue phenomena' and poetry and religion as tiresome fictions, and the story tells of his 'journey south' to meet the realities he has ignored. The first crack in his self-sufficiency comes when his aircraft to Venezuela comes down in the Mexican desert. As a rational man he turns his back on the vast and irrelevant spectacle and plays chess till rescue arrives; yet it bewilders him a little that in the desert there is nowhere to plug in his electric razor. His next annunciation comes in a decaying tobacco plantation in Guatemala, where he finds an old friend hanging by the neck in his hut, the wireless still playing and the vultures gathering on the roof. Faber returns to Paris, travels on to Greece with a young girl he has met on the boat, and sleeps with her, finds she is his own daughter, and accidentally kills her. Hurrying on to his own death, now, from cancer, he rejoins his old mistress, the girl's mother (she patches up ancient pottery: 'Gods were part of her job') and has time to learn from her the meaning of the 'fictions' that in his hubris he has ignored.

The story (translated from the German by Michael Bullock) is told in an odd paperback, headline style, with brief staccato sentences, which I suppose represent Faber's stunted imagination. It is not very good as a tale about people; we have taken this journey to the primal verities before, and Faber, with his scientific tirades and book-references to Reichenbach and Whitehead, is rather a dummy figure and a crude symbol for modern Western man. His later ruminations about Americans, 'those palefaces who don't know what wine is, those vitamin-eaters who drink cold tea and chew cottonwool', ring pretty cheaply, and for the effect of the tropics and the old gods on secure Western minds one would do better to read Graham Greene. What makes the book interesting is that the author has taken trouble with pile up round the hero's incestuous tragedy, I found I was watching for them with excitement. It is not unsubtle that Faber should receive his first artistic experience from the head of a sleep-Antigone) have befriended a blind old man, that as Faber lies in his bath in her mother's he should picture the latter coming in

should (like Oedipus) think of blinding himself with the forks.

But I wonder what the effect would have been if the author had actually said 'like Antigone' or 'like Clytemnestra'; less gratifying, I'm afraid. Allusion, and allegory also, are techniques for increasing the reader's self-esteem. All the same, it pays you to keep alert with this book; it contains one or two genuine and fine surprises. For instance, when Faber, before the birth of his daughter, mortally offended his mistress by talking of it as 'her' child, he thought she was angry with him for evading his responsibilities, whereas we later realize that what upset her was that he was all too closely echoing her own thoughts: as a feminist, who wanted 'to do away with Jehovah', she would have liked her child to have no father. It is thus sound tragic logic that the girl should grow up looking for a father, and, finding him, walk blindly into incest.

Elizabeth Jane Howard seems to have fallen bit in love with her romantic foursome, Emmanuel, the vital, philandering, aging dramatist, his jealous, neurotic, 'county' wife, his devoted young protégé Jimmy, and the ingénue from a country vicarage who steps into the lead in his new play. The four take up in rotation the story of their interweavings and jealousies and final reassortment; they have a breathless time of it, conversations end with brave, ringing curtain lines ('I hope so Jimmy. I can't tell you how I hope that') and Emmanuel philosophizes in arty prose ('Time seemed now to have a life of its own-doubleedged, airy and malignant'). All four have a gentle, whimsical habit of humanizing animals and objects: 'He watched the silver fishes swoon in the clear fat . . . jig a little as they stiffened, lose their beauty and become crumbly and confiding'. I have heard good reports of Elizabeth Howard's earlier novels, but something seems to have gone wrong with this one, though a fresh and true little passage near the end, in which the wife begins to see what self-pity has made of her, shows what she is capable of.

Pierre Boulle, author of The Bridge over the River Kwai, now writes about another enclosed community, a rubber plantation in Malaya. The theme of Sacrilege in Malaya (translated from the French by Xan Fielding) is that any institution of this kind needs some myth, that is some nonsense, to make it work, and that important virtues can spring from such a soil; yet that in the end it won't do, the soul was not meant to devote itself to nonsenses and must break free while it still can. As in The Bridge over the

River Kwai the Englishman's nonsense or mania is shown as devotion to a symbol: at the fall of Singapore, Uncle Law, the managing director, goes out and buys a tin trunk for the company's papers and travels half-way round the world sitting on its lid. The mania of his French opposite number, on the other hand, is devotion to an idea, a metaphysical infatuation with the idea of organization as an end in itself. There is a very funny scene in which Chaulette, who has conceived the splendid notion of an 'abstract system of organization, stripped of all material contingencies, an absolutely perfect, absolutely universal system which could be applied a priori and automatically to no matter what community of people', finds that a youthful member of his committee has arrived at the same idea. He rises in a fever of excitement; they compare their pieces of tracing paper, covered with circles, dashes, arrows, and dotted lines; they are identical.

One reads Pierre Boulle for much of the time as though this were English comic writing, and then the joke recedes from the surface of the page and you find yourself in the middle of one of those elaborately cadenced rhetorical exercises which are still part of the equipment of any competent French writer. In an English comic writer the same sort of thing would have to be mock-pompous, a parody of a *Times* leader, etc.; here the form, the rhetorical and dialectical display, is not ironic, only the content.

Irony would be out of place in Sister Bright's ward; she would think it unhelpful. Her semidocumentary The Day's End does what it sets out to do with a good deal of success: it catches an experienced and devoted nurse in action. Much less has been written about the nurse's profession than about, say, acting; and nursing seems to have some likeness to acting; you have to keep an eye on the lights, the feel of the house, the next half-dozen stage-movements (here the next lot of bed-pans, or the progress of an intravenous drip) whilst impersonating your chosen human role. Pamela Bright knows it all inside out, and in each of her dozen or so deathbed scenes gives you the human and the technical dimensions combined. But of course she is a professional, and her attitude to human beings is as specialized as an actor's. She understands them as patients, and as patients' visitors; I don't think she has any exceptional understanding of them just as people, and this limits her as a novelist. Moreover she hasn't found how to get on the right terms with her readers; she talks to us as if we were the new nurse.

CRITIC ON THE HEARTH

Weekly comments on B.B.C. programmes by independent contributors

Television Broadcasting

DOCUMENTARY

Not Quite Innocent Deceptions

TELEVISION IS AN impure medium—thank goodness! At one end of its scale it is simply a little cinema in the home, at which one can enjoy, without having to brave the queues and blizzards and fork out two-and-ninepence, a forgotten Humphrey Bogart or an early Astaireand-Rogers. This is of course 'not television' though it can be most enjoyable. At the other end comes 'actuality', the split-second transmission of what is happening somewhere else in the world but at this very moment. But most programmes are conducted on a mixture of levels. That excellent programme 'The News', instance, is a combination of announcing and recorded and edited film. A announcing and recorded and edited limit. As play, most of which is being performed in a studio as we watch it, may nevertheless include previously filmed 'outside' sequences. And when the members of a B.B.C. Film Unit get together to make up a completely recorded programme, they are in fact actually functioning as film-producers pure and simple, in the cinema sense—though what they produce would normally be neither appropriate nor acceptable in a commercial house.

This is all much to the good. We begin to worry only when the levels seem to be deceptively mixed: and this becomes increasingly true of the recorded interview. The illusion here is that we are watching actuality; but one grows gradually more conscious that the apparently happy-go-lucky conversation may be in fact a compilation of cunningly edited extracts. There were notable hints of this in the second half of Ed Murrow's 'Small World' (December 19) the conversation between Lord Montgomery and Generals Mark Clark and Fridolin von Senger. Murrow started by reminding us that this was a continuation of a previous programme and then, directly addressing Monty, asked him to carry on: which Monty did. We can be pretty certain, however, that the whole

conversation was in reality recorded at a sitting and only afterwards split. Monty's apparent 'answer', in fact must have been spoken before Murrow's question, which was fitted to it only subsequently.

Then, somewhere about the middle of this programme, Monty suddenly delivered himself of a speech the beginning of which, word for word, intonation for intonation, we had already heard at the close of the previous instalment. Add to this the sudden short flashes, the disappearance of a speaker whose mouth is already again opening, that tell us that the latter half of a reply, perhaps even the final clauses of a sentence, have been cut out; and what vistas of rearrangement, surgery, and false emphasis are not opened up to us!

There has been much correspondence in the press recently about the fallibility of taperecordings as legal evidence. Nothing is easier than for myself,



Mr. Harold Bacon Dewhurst, as Father Christmas, talking to an admirer in 'It Happened to Me'

as diabolical interviewer, to conduct an interview like this:

Q: What do you think of the hydrogen bomb? A: It should be completely abolished and anyone attempting to revive it should be sent to

Q: What do you think of nude bathing?

A: Oh well, live and let live, you know.

and then to reverse the questions without reversing the answers, to the embarrassment and merriment of one and all. I do not pretend that such things actually have been done. But, physically speaking, they are perfectly easy to do. The listener will rightly be suspicious;

nothing should be done to encourage his

Some dislocation must have occurred to John Freeman's 'Face to Face' with Lord Morrison of Lambeth (December 18), for—unless I was dozing-not one of the quotations offered in Radio Times actually appeared in the programme, which consisted not precisely of an attack on, but let us say an undermining of, Lord Attlee's party leadership. I have heard it objected that these were extremely indiscreet questions. No. Indiscreetness is a function of the unwillingness of the victim. Lord Morrison was only too evidently eager to answer them, and clearly they would not have been asked had it not been known in advance that they would be welcome.

Programme planning was determined to twangle our heart-strings for Christmas, It Happened to Me' (December 22) was a Pagliacci piece about the solitary old-age pensioner behind the Father Christmas mask, Mr. Harold Dewhurst is an old actor who lives by himself and will spend Christmas by himself, but nevertheless plays Santa at a great London store. But his very dignity and independence forced one to suppose that his solitariness must Hywel Davies tried to make of it. In 'Path-finder' (December 23), the story of Group Captain Leonard Cheshire, every human evil in the book was thrown at us—cancer, paralysis, famine, gas-chambers: but what was there to do but say, 'Yes, yes'? We had been knocked down by facts, and lay sprawling.

Jollier fare included Wendy Toye's and Ronald Searle's 'On the Twelfth Day' (Decem-

ber 23), which showed what would happen if one took that charming carol literally. What we saw of Bertram Mills' Circus (December 17) was marvellous; more's the pity then that most of the viewing time was devoted to preparations for the arrival of the Royal Party. Most of the time, in fact, we were watching the wrong circus.

HILARY CORKE



The Cheshire Home at Staunton Harold, seen in 'Pathfinder', the story of Group Captain Leonard Cheshire, v.c.

DRAMA

A Blow-out

As FOOD METAPHORS are unavoidable at this time of year, I do not hesitate to say that last week's blow-out has left me in a state of glassy-eyed, contented stupor. Resolutely festive as ever, the Corporation's entertainments have been well-balanced, solid, and copious.

Without going to the macabrely unseasonal lengths of Associatedunseasonal lengths of Associated-Rediffusion, who celebrated Christmas Day with Act I of The Turn of the Screw, the B.B.C ushered the week in with a superbly claustrophobic production of Helen McCloy's thriller, Through a Glass Darkly (for its high-frequency discharge of malice I have not seen the of malice I have not seen the equal of Moira Redmond's performance of the frustrated Eng-lish teacher), and rounded it off with a telerecording of the first three parts of Nigel Kneale's Quatermass and the Pit. This



Scene from Through a Glass Darkly, with (left to right) Diane Clare as Faustina Crayle, Julia Arnall as Gisela von Weber, and Moira Redmond as Alice Aitchison



Waters of the Moon, with (left to right) Cyril Raymond and Edith Lvans as Robert and Helen Lancaster, Sybil Thorndike as Mrs. Whyte, and Lewis Casson as Colonel Selby

vision drama this year, easily stood up to the repetition even though its once closely guarded secrets are now common knowledge. Mr. Kneale is a craftsman in a sense that few writers can claim to be. Everything about the script is expertly practical; at a push one feels that he could have constructed the sets as well—though even he must have been momentarily stunned by Clifford Hatts's design of the Martian space vessel as the exoskeleton of a devilish insect.

vessel as the exoskeleton of a devilish insect.

Flanked thus with horrors, the Christmas week productions were firmly directed at the family audience, their sentiment gathering to a head as the day approached. 'Will move an elephant and will not harm a child': Edward Thomas's quotation from a patent medicine advertisement when reviewing the poems of Ella Wheeler Wilcox, might be applied to some of them. Least moving was The Gentle Flame, Francis Essex's Christmas Eye travesty of Andersen's story of the little match girl. This was a really bad example of old-style musical comedy, eliciting push-button responses to such things as a waif in the snow, a ballroom, and a Byronic bachelor with pots of money. The legendary association between romance and wealth is unobjectionable, but one does object to the dreadful dialogue ('This is my first ball') Mr. Essex influed on Julie Andrews, and to the fact that he destroyed the sad poetry of the original by making the real world as fanciful as the one the girl imagined.

original by making the real world as fanciful as the one the airl imagined.

Barrie's A Kiss for Cinderella, on Christmas Day, showed how successful this kind of reworking can be. The waif in this case, a poor Cockney girl convinced that she is Cinderella ('I've got such pretty feet'), also has herself a dream ball: but Barrie does not cheat—all the girl's waking illusions about high life reappear in the persons of Lord Times, The Censor (masked and carrying an axe), and a costermonger monarch who distributes sandwiches and oranges to the glittering throng. Desmond Davis's production was most sensitively attuned to the play's wayward intermingling of fantasy and realism; its sentimentality came straight from the heart. Jeannie Carson and Kendrick Owen, playing with delicate self-parody, built the romance into something very touching; and there was a score of real distinction by Christopher Whelen.

Willis Hall came charging back with *Poet and Pheasant* (December 22), a 'brass-band comedy' (new category to me) depicting the events which led an unassertive old cornet player to putting

his foot down at home. As usual in Mr. Hall's plays, women are to blame. Maud Higgins, the virago wife, goes too far when she pawns Frank's cornet the day before the band contest; Frank, after thirty years of dithering apology, strikes back. The band scenes (all male) are full of robust character observation, and there is one superbly economical drunk scene in which Frank and a gloomy crony try to evade closing time by offering to put up the shutters—an offer that undergoes weird mutations (''Ere's Tom; 'e's a very good organizer; a very good organ grinder'). Frank Pettingell and Geoffrey Bayldon's playing of this dazzling episode put it in a class with the Northern comedy of Tommy Thompson and Dora Broome. But women, women; whenever they appear Mr. Hall's comedy gives way to rancorous snarling.

a class with the Northern comedy of Tommy Thompson and Dora Broome. But women, women; whenever they appear Mr. Hall's comedy gives way to rancorous snarling.

Rex Tucker's The Three Princes (Boxing Day) began modestly as a tale of old Baghdad, and developed into an immensely elaborate affair with a magic carpet sweeping over the plains of Asia and a pilgrimage to a demon's grotto displaying a gigantic arm arising to



Michael Somes and Margot Fonteyn in Tchaikovsky's The Sleeping Beauty

clutch the top of an abyss. Technically Shaun Sutton's production was extremely exciting, and the script, based on a Persian legend, had the logic, inventiveness, and wit of the best fairy tales. These in the past have been a monopoly of radio which, of course, can produce them more cheaply. But the ringing success of this production, and such details as the hunt through the palace and Paul Whitsun-Jones's gurgling self-delight as the fat Prince of the Yellow Moon, should not be forgotten.

should not be forgotten.

The season also brought out the stars. Dame Margot Fonteyn and Michael Somes danced in Margaret Dale's ambitious production of The Sleeping Beauty (December 20), and, on the brink of the New Year, members of the original cast of N. C. Hunter's Waters of the Moon came back to do it again. Marooned once more at the end of December in that frowsty Dartmoor hotel, Dame Sybil Thorndike, Dame Edith Evans, and Sir Lewis Casson renewed the impact of the beau monde on a society of fourguinea-a-week residents. With sheet ice on the roads for miles around, all the doors locked, the Colonel dozing by the fire and Mrs. Lancaster blithely hogging the bath water, it seemed that they had never gone away.

IRVING WARDLE

Sound Broadcasting

DRAMA

Monopoly Defended

THE STOCK-TAKING customary at this time of year has special significance for me because this is the last time I shall be writing this column. Mr. Frederick Laws, whose judgment as a radio critic has been respected for many years, will

witing next week.

When I began contributing this column eighteen months ago the Jeremiahs were prophesying the end of sound broadcasting and saying that radio had been outdated by television. With the review of the B.B.C. charter in prospect, some of the anti-radio men have now been revealed as secret campaigners for commercial radio. The argument that radio is not worth the money spent on it has been replaced by the argument that the only thing wrong with our present system is the monopoly enjoyed by the B.B.C. in sound. Though the prospect of an alternative market for radio scripts is enticing I fear that the argument is more specious than it appears.

Despite promises from the monopoly-breakers, I do not believe that a second network would provide anything more than 'pop' programmes and soap operas and I am quite sure that it would not be able to compete with the high standard maintained by the B.B.C. Drama Department. Whenever the arguments for and against monopoly crop up it is a curious fact that the work of the department hardly gets a mention. Though the department was sneered at when Mr. Val Gielgud started it, its work is now the crown of the Corporation's achievement and it would be a sad thing to see it destroyed by specious competition.

One has only to recall the kind of work put out in the last year to realize the nature of the department's contribution to our cultural life. Listeners have heard many plays that have been blocked or overlooked by the West End theatre. Though Ionesco's Rhinoceros is now to be staged in London it had to be pioneered by Michael Bakewell. De Montherlant's The Land Where the King is a Child and his Don Juan had their premieres on the Third Programme. H. B. Fortuin introduced Brecht's Galileo Galilei to British ears and made known the greatness of Schiller's Don Carlos. Apart from producing Shakespeare's Coriolanus with the largest crowd ever used in a studio, John Gibson gave us Brecht's The Exception and the Rule. Emyr Humphries employed a brilliant Welsh cast to bring home the tremendous tension of Saunders Lewis's Treason. Val Gielgud continued his work of transforming the Greek classics and Ray-mond Raikes enlarged our knowledge of the national repertory. In the past eighteen months or so foreign dramatists like Schéhadé, Fabbri, Betti, Böll, Bachmann, Dürrenmatt, Eich, Giovaninetti and Duras, who might have waited a generation—or forever—for a British production, have been made known to us.

It is not enough to justify the department on the grounds that it supplies us with a national theatre. It also has to face the task of performing works especially suited to the medium. In this there have been notable successes in the past There was Tyrone Guthrie's return to the study of the interior monologue in Michenor's Dog. James Hanley's novel, Levine, made a fine play and his terrifying Gobbet stays in the mind. Giles Cooper, with his back to television, employed his wonderful economy with words in Before the Monday. Bruce Stewart's Shadow of a Pale Horse would be hailed as a classic if he were American rather than Australian, Bill Naughton's The Long Carry and Late Night on Watling Street mark the beginning of a theatre waiting Street mark the beginning of a theatre that is genuinely proletarian. Peter Everett's Day at Izzard's Wharf showed the way towards involving poetic diction in a realist setting. Francis Dillon's Eileen Aroon homerized a legend and D. G. Bridson's Hazard at Quebec marked a development in the style of historical

Last of all there is Beckett and my gaffe of the year. Only a few weeks after Donald McWhinnie had made such a brilliant job of Embers and I had condemned it, it was awarded an Italiana Prize. I still do not grant Beckett his premisses but I have to confess that his old man on the shore is still muttering away in my mind. Perhaps I have to thank McWhinnie for

that.

Recalling some of the outstanding productions does not make one forget the enormous body of work that pours out and does not reach the highest standards. When I have heard some of the poorer plays I have wondered whether the department is falling foul of its own progress. I feel that it is not always realized that the public's taste has been so advanced by the B.B.C. that many of the things that were all right in 1935 no longer have any appeal. The public is not as easily

satisfied as it was. And this of course is entirely the Drama Department's doing. It has contributed to the creation of a new art form. Its monopoly may be attacked but it should be judged by its efforts. I do not think that any other organization could beat it.

IAN RODGER

THE SPOKEN WORD

Outsider Within?

NOT INAPPROPRIATELY to a British Christmas, the star turn this weekwas undoubtedly Mr. John Betjeman. 'People was undoubtedly Mr. John Betjeman. 'People Today' on Christmas Eve (Home) offered us a self-portrait tactfully elicited and controlled by Irene Slade, who began by introducing her subject as 'one of those rare beings who are really sincere'. Happy word! Some day somebody will have to define it, its aura and overtones. Perhaps a Betjeman or a Potter with a strong write a handbook. 'How To Be might even write a handbook: 'How To Be Sincere, In Six Easy Stages'—with chapters on tact, selectivity, charm, confidence, diffidence, and self-deprecation, in that order.

But there was no need for practice here. The interview was live, adept, and disarming all the way. Mr. Betjeman gave it a highly effective tail-piece, with a psychiatrist's verdict on his character: 'You're a clever child of twelve-anda-half'. But he had begun by revealing the real crux in his life, which must have occurred a little beyond that age, when he was a pupil at Marlborough, and was given a terrifying insight into what the powers-that-were, among the upper boys, could do to the confirmed outsider.
The young Betjeman watched the culprit being stripped to his shirt, slung up in a large wastepaper basket and smeared all over with ink and treacle—for all the school to see. Needless to say, the sacrificial victim rarely survived such an ordeal for more than a term or so. Unable to hold up his head again, he would soon be sent home as 'not quite suitable'. The dread in the narrator's voice at this point, whether whole-some or otherwise, was unmistakable.

And the episode seemed to be a key to the

career that followed: an engaging series of attempts and failures to 'identify', as cricketmaster at a prep school, or as a journalist on a go-getting daily. Meanwhile the poet was no doubt elaborating that private, compensatory code of good taste, good manners and morals, against which all the others (including his own against which all the betters (hierarding his own alter ego) could be shown up as comic, or bathetic transgressors. In fact this interview went nearly all the way to explaining the nature and the mixture of the ingredients in the poetry -nostalgia, bathos, irony, rue, and religious fervour.

It was when the latter quality came to the fore, and threatened to swamp the proceedings, that Miss Slade proved herself the adroitest of that Miss Slade proved herself the adrottest of steerswomen (worthy in herself of a Betjeman poem) altering course with a brisk: 'Now, to change the subject *completely*, when did you make your first broadcast?' Apart from this, there were no checks to enthusiasm. The poet's publishers had already been quoted, apropos of the sales of his latest volume, to the effect that 'there'd been nothing like it since Childe Harold'. Wasn't it the same publishers who refused to touch Childe Harold's successor, Don Juan? Which only goes to show that in sincerity, as in other things, nothing can fail like

Of other programmes this week, 'West African Portraits', edited by David Williams (December 22, Third) was the most sizable. Having been taken to task for my remarks on previous items in this series, I can only say that if I mis-attributed the cause, I have to

repeat my feelings about the effect. Here again the approach seemed to me to be too close-in, the information too crowded, to allow clarity of focus for the unenlightened listener. But there were rewarding details—for instance about illicit diamond-mining. And what emerged most notably from the whole programme was the sense of opposition between the cosmopolitan and the native, the westernized and the tradi-tional ways of life. It looks as if this might provide tensions enough in any independent Africa of the future.

But these would be simple compared with present stresses inside Nato. Thomas Barman's 'The Other Nato' on Wednesday evening (December 23, Home) gave voice to representatives of the smaller nations belonging to the great concert, and the resulting ensemble was a long way from harmonious. The Greek spokesman was echoed by all when he expressed 'a great longing for European unity'. But I wonder which of these nations would consent to such unity on any but its own absolute

This being a concluding contribution, I suppose I ought to have drawn up a list of my sins. Since there isn't room, I can only wish that commission and omission had been interchanged; and a happy new year to my successor. DAVID PAUL

Next week Joanna Richardson takes over from David Paul.

MUSIC

The Bells of Morning

CHRISTMAS AND THE SHIFT from Old to New Year are times when bell-ringing comes into its own. Pealing bells do not fit easily into composed music; they must be left on their own, not compelled to play some sophisticated musical part, and it is noticeable that Bach used not bells but trumpets to announce these festivals of the church. There are rare moments when bells become, under the

inspiration of a master, a natural part of a musical scheme,

Such are the bells of morning that end the Spaniard Manuel de Falla's ballet El amor brujo (December 27, Third), a wonderful moment that never fails to excite. This is not specifically Christmas or New Year music; the specifically Cinishas of New Year filts, the scenario of the ballet is completely pagan, this story of gipsies and incantations and hot love. Yet Falla's apotheosis, gay with the sound of bells, quivers with a feeling of hope fulfilled, the overcoming of death by love; and on this last Sunday of the year it sounded very apt. The performance by the Royal Philharmonic Orchestra, under the Cuban conductor Alberto Bolet, was passable; best was the singing of Martha Perez, especially in the last song surrounded by the clangour and hum of the bells.

One of the most valuable programmes recently was 'The Christmas Story' on December 22 (Third), consisting of music by late Renaissance masters. This was the third of six recitals of music of that period devised and introduced by Jeremy Noble. I am unqualified to judge the musicological accuracy of his commentaries though I have no doubt that he knew all about what he was describing; he is at present the scenario of the ballet is completely pagan, this

though I have no doubt that he knew all about what he was describing; he is at present the most gifted of the younger generation of radio explainers of music. It happened that although I had heard music by each of the men whose works were sung (admirably in every way) by the Ambrosian Singers under Denis Stevens, I could not claim to be an informed listener; and thus it was that Mr. Noble's information, delivered in a clear, scholarly manner and without that all too deliberate intimacy that clouds some other attempts of this kind, was decisively

The music? To begin with a magnificent Mass by Morales for male voices, a work of great strength; then the splendid elaboration of Victoria's Magnificat primi toni and, after some fine Byrd and Andrea Gabrieli, the Omnes de Saba venient by Lassus which touched both heart and mind; and finally the delightful Nunc dimittis from Orlando Gibbons's second service. It was a memorable concert, with Byrd's O magnum mysterium as the central point of enchantment. And when credits are being distributed, the organ playing of Charles Spinks must not go unacclaimed.

The most unexpected piece of music of the last ten days has been Cyril Scott's Trio for flute, cello, and piano; the most satisfying spiritually, Schütz's The Story of the Birth of

Christ. But first came Bach's cantata Jesu, nun sei gepreiset which opens with the shrill blare of his Christmas trumpets, a wonderful sound in this performance (December 21, Third) recorded in Ansbach; an uneven performance (the Munich Bach Choir lacked soprano tone to match its tenors and its insistent basses) and an uneven work. It has one of Bach's loveliest arias and another in his most gruff, pattern-making mood, with a 'cello sawing away interminably while a tenor voice strives to get a morsel of attractive melody into the movement.

Scott's trio had, as far as I could discover, no previous publicity in print; it was announced as being written some three years ago, the work apparently of a man of seventy-seven, though in its freshness and vigour it gave no hint of

that when played for the first time by William Bennett (flute), Margaret Moncrieff ('cello), and Margaret Norman (piano) at 11.20 at night on December 22 (Home). I imagine few stayed up all that late to hear it, and am glad that cold duty, connected with this column, forced me to do so. Otherwise I should have missed an excellent performance of finely constructed and subtly felt music, masterly in craftsmanning throughout

As for the Schütz oratorio on Christmas Eve (Third) which the London Bach Society had recorded to great effect under Paul Steinitz in St. Bartholomew's, Smithfield, it was enthralling and, in its simplicity and dignity, most noble.

Scott Goddard

Next week Jeremy Noble takes over from Scott Goddard.

'A Life for the Tsar'

By GERALD SEAMAN

Glinka's opera will be broadcast at 5.0 p.m. on Sunday, January 3 (Third)

'IT SEEMS TO ME that I, even I, could give our stage something worthy. It will not be a masterpice—as I am the first to admit—but nevertheless it will not be all that bad! . . . The chief thing is the choice of subject. In any case, I want it to be completely national: first and foremost the subject, but the music too—so that my dear compatriots will feel themselves completely at home'. These words of Glinka, writing from Germany in 1834, define the essential features of a work which is sometimes erroneously referred to as 'the first Russian opera'—his A Life for the Tsar. It is neither the first Russian opera—Russian composers had been writing operas to Russian texts and making use of the folk idiom since 1779—nor even the first Russian setting of this story, for Cavos's Ivan Susanin (the name by which Glinka's opera is known in the Soviet Union) had been written as early at 1815.

Glinka must have been acquainted with Cavos's opera, which held the stage for over twenty years—it was Cavos who conducted the first performance of A Life for the Tsar—and the two works possess features in common. For example, both employ folk choruses, and in both instances the action centres on the figure of the peasant Susann. However, there are also outstanding differences: in Cavos, little or no artempt is made to differentiate musically between the Russians and the Poles, as in Glinka; whereas Cavos's Susanin is given a happy ending, Glinka's opera concludes tractically with the death of the hero—though with the triumph of the Russian people.

Deciding on a Subject

Glinka was long in deciding on a suitable subject. He wanted to write an opera on a large scale and for some time toyed with the idea of setting Zhukovsky's Marina Grove, a sentimental novel then much in vogue. By chance, it was Zhukovsky who drew his attention to the legend of Ivan Susanin, a Russian peasant who in the early seventeenth century is supposed to have saved the life of the young Tsar Michael from the Polish invaders by leading them into the depths of the forest, willingly sacrificing his own life in the process. Having drawn up the scenario, Glinka asked Zhukovsky to write the libretto, but owing to pressure of work this task was entrusted to Baron Rosen, a German littérateur of questionable ability who possessed but a meagre knowledge of Russian. Further com-

plications resulted from the fact that Glinka was so inspired by the subject that he proceeded to write the music before receiving the words, so that Rosen was obliged to compose the verses to a fixed pattern. This, to some extent, accounts for the poor quality of the original libretto. Keen interest was displayed in the work by Nicholas I, who was not slow to observe the political advantages of such a theme and suggested that the original title, *Ivan Susanin*, should be changed to *A Life for the Tsar*. The work was given its first performance at the Bolshoi Theatre, St. Petersburg, on December 9, 1836, when it was enthusiastically received.

'National Heroic-tragic Opera

Glinka termed his A Life for the Tsar a national heroic-tragic opera, and it is this which gives us the key to its meaning. The basic idea is that of the patriotism and heroism of the Russian people, a motive which is emphasized by the constant appearance of musical themes associated with these ideas throughout the opera. Such is the melody of the first chorus, which recurs in Act III, Act IV, and the Epilogue. There is also evidence that the final 'Slavsya' —the hymn with which the opera concludes—is compiled from motives previously heard in the course of the opera. From the dramaturgical point of view, the first two acts serve as an exposition of the two conflicting forces—the Russian peasants, who are represented by folk music, and the aristocratic Poles, who are depicted in the rhythms of their national dances the polonaise, the krakowiak, the mazurka. The third act serves to reveal the essential features of Susanin, a loving father, a sagacious peasant, a Slavonic Agonistes slowly becoming aware of his true mission as the saviour of his people. The fourth act is striking in its dramatic force The musical motive of the Poles is presented in ever-changing, ever-weakening forms as they press deeper and deeper into the dreary wood; as night descends they lie down to sleep. A storm arises, and through the gusts of wind and driving snow come fleeting visions of Susanin's home and family, suggested musically in the orchestra. At dawn the Poles awake. In a last triumphant outburst Susanin tells them of the doom that awaits them, and the scene closes with his glorious death at their hands.

Glinka wrote in the scenario: 'The role of Susanin in general to be written as simply as possible'. In revealing his character Glinka uses

the musical themes which express in the opera the idea of patriotism, and nearly the whole of Susanin's part is permeated with folk-song inflections, in some cases making use of authentic folk music. His recitative is of the greatest importance in that it served as the basis for that peculiar form of musical inflection found not only in the operas of Borodin, Mussorgsky, and Rimsky-Korsakov but in their songs. Among the other personages may be mentioned Susanin's adopted son Vanya, his daughter Antonida, and her lover Sobinin. Vanya (sung by a contralto) is represented simply and without exaggerated pathos. Antonida is the typical Russian girl, passionate, ingenuous, and devoted—the precursor of Tatyana in Onegin and Olga in Pskovityanka—while Sobinin is an early example of the dauntless, virile heroes who throng the pages of nineteenth-century Russian opera.

From the melodic point of view, A Life for the Tsar is a synthesis of Italian cantilena and Russian folk song, the former represented chiefly in the arias of Vanya, Antonida, and Sobinin, the latter in the folk choruses and the part of Susanin. In contrast to these is the music of the Poles, who are mainly characterized by mazurkalike choruses. Unlike the Russians, they are not portrayed individually, though they speak an elegant musical language markedly different from that of their Russian counterparts. Precisely this contrast brings about one of the finest passages in the whole opera when, at the moment of Susanin's death (in Act IV), the folk song Down by Mother Volga booms out in the bass against the agitated cries of the Poles.

A Mature Work

Apart from its historical significance in that it is the first Russian opera to dispense with spoken dialogue—incidentally, it contains the first recorded use of quintuple time in Russian art-music (the wedding chorus in Act III)—A Life for the Tsar is the most important phenomenon in Russian music of the early nineteenth century. It is a mature work in every sense, both in its skilful blending of counterpoint and folk music, in its sparkling orchestration, effortless melody, and (in the words of Serov) its 'purely Russian elegiac quality'. Together with Ruslan and Lyudmida it forms the foundation of the mighty edifice of Russian classical opera, and it is not an exacteration to claim that in their pages is foreshadowed almost every subsequent Russian operatic procedure.

In Two Minds on Television Music



By JEREMY NOBLE

'Or course there's no real place at all for music on television'.

'Oh, come off it. You're exaggerating as usual'.

'No, I mean it. After all, what conceivable advantage is there in having one's attention distracted from the *sound* of the music, which is what matters, by the sight of the people who're playing it?'

'Don't you think that a good production gives you some insight into the way the music works, by focusing on particular players at particular moments?'

'Very rarely, because orchestral textures are usually too complicated. For example, when Milstein was playing the Beethoven violin concerto the other night the camera was so interested in him being a virtuoso that it quite ignored an important entry in the double-basses. Now for anyone who didn't know the work I wouldn't mind betting that bass entry was inaudible, simply because it was invisible and the soloist wasn't. Besides, this business of focusing on single players gives them too much individuality. I want to listen, not to have my attention drawn to the fact that the second oboist's tie is slipping'.

your eyes when you're at a concert or a recital'. 'No, not always. In fact, to be honest, hardly ever. But then, you see, if I'm in a concert-hall I can choose what to look at, and how hard to look at it. Often I find I've been looking straight at the orchestra with my eyes wide open but not really seeing it at all. And that's just what television makes so difficult. The fact that someone is deciding precisely what shall be on the screen at any given moment means that a deliberate effort of will is necessary not to see it—it would be like refusing to pay attention to a demon-

stration. No, as far as I'm concerned I'd much

rather listen to my music on the radio'

'Well, ves-but don't tell me you always shut

'I have to admit I would too-as long as the Third doesn't have to conform to Norman Collins's idea of what's intelligible. But still, the fact remains that far fewer people are listening to sound radio now that they've got television. If you're going to take a really purist line, if you're going to say that since television can't make any relevant contribution to music then there shouldn't be any music on television, you have to realize what you're going to do to the musical life of the country. You see, ever since the start of the B.B.C. people in this country have had a chance of hearing decent music on their radios. Of course you can't make the horse drink, but the fact that the water is under his nose is some inducement, and I'm sure that sound radio, even more than the gramophone, has been responsible for the spread of musical appreciation in the last twenty years or so. In England it's particularly necessary, heaven knows, because musical life is so centralized.

Surely now that sound radio is losing part of its

audience to television, it would be a disaster if

television failed to take over the function at

least of introducing people to good music'.

'All right, all right. There's a good deal of force in that, I agree. But we're still left with the problem of how to do it—or at least, how to do it most effectively. And I still find televised concerts a bit of a pain in the neck'.

'Well, so do I, but don't you think this is because we're in too good a position to compare them with the real thing? I was talking about this to a friend of mine who is a schoolmaster down in Gloucestershire, and according to him children who wouldn't consider themselves particularly interested in music seem to find televised concerts fascinating. They're in a fairly remote country area, hardly any of them have been to a concert—I suppose it's the technical aspect of the business that gets their attention'.

'In that case I wonder, mightn't it be a good idea to try and emphasize the mechanics of a concert rather than playing them down?'

'How do you mean?'

Well, to me so many televised concerts seem to take place in a sort of limbo. It's not like a real concert because even when there's an audience it's kept just out of sight; it provides applause, but the viewer can't identify with it. And those draped backgrounds are pretty limboid too. And on the other hand the formal dress of the players keeps the whole thing at a bit of a distance and prevents it from making the sort of intimate impact that is supposed to be television's forte. I don't know, but I can't help wondering whether it would be possible to have a televised rehearsal every now and then -whether there was going to be a proper performance later or not. The orchestra and the conductor could dress precisely as they normally dress at rehearsals; the studio needn't pretend to be anything but a studio. In fact if other television cameras occasionally got into the picture it wouldn't matter, because you wouldn't be trying to create the illusion of being at a concert'

".I suppose the aim of all this would be to try and create a sort of workshop atmosphere".

'Yes, precisely. Workshop instead of beautyparlour. Rather the sort of change that's been taking place in American ballet, and basically for the same reason—to try to give dancing (or music in this case) a fresh impact for a fresh audience'.

'I can imagine there would be a good deal of resistance among people who like television to remind them of the one or two concerts they may have been to in the past'.

'Of course. But think how many people who own television sets never have been to a concert'.

You're right. I'm sure there is a real need to break away from the notion of the televised concert. Breaking down the traditional formalities of the concert-hall would certainly be one way, but I wonder whether there isn't scope in the other direction as well'.

"What do you mean?"

'Well, your idea is to get closer to the realities of music-making. How about trying

instead to present a sort of imaginative visual commentary on the music?'

'Not like Fantasia, I hope'.

'Well, you know, I don't think there was so much wrong with the idea behind Fantasia. It was the appalling vulgarity with which it was carried out. Did you see that little programme the other day about London street cries—" New Oysters", it was called. Well, there they accompanied the music with shots of engravings and woodcuts of street-vendors, and it was quite astonishing how much atmosphere they released. On the other hand the one item that they took direct from the studio remained quite flat and earthbound'.

'Yes, I remember. Of course, it isn't a new idea. There was that splendid version of Messiah that Christian Simpson did, accompanied by shots of baroque sculpture and painting'.

Didn't see it, I'm afraid, but that's certainly the sort of thing I had in mind. Of course opera demands a more realistic treatment, though there's scope for a good deal of imagination even there, if you saw ITV's version of The Turn of the Screw. Classical ballet needs something a little less realistic still, and Margaret Dale's version of The Sleeping Beauty seemed to me to have got very close to the right balance. But what I really have in mind is programme music like Liszt's symphonic poems, or any music that makes a strong visual suggestion like the Debussy orchestral triptychs. Surely one could work out some visual accompaniment to the Nocturnes by using impressionist paintings?

'You'd need colour telèvision to do it'.

'Well, then, how about Japanese prints for La Mer? After all, it was Debussy's idea to have the Hokusai wave on the cover of the score'.

'Isn't all this frightfully irrelevant to the music?'

'It was you yourself who said that any form of visual accompaniment to the music was irrelevant. All right, then. Let's face up to it and at least be imaginatively irrelevant. The more different ways we try to put music over on television the more people we are likely to persuade to *listen*. Perhaps we may even make a few recruits to steam-radio'.

'Let's hope so'

Time and Tide

Harebells within the chalk stones lie
Whose bonny bone my bloom will don;
Their filmy roots my hair will tie,
My ebbing will enrich their dye
That breaks where I am gone.

For on my palm a harebell—see How flesh to flesh the veining runs! This calyx is the wave of me That from the creviced rock broke free: These stamens are my sons.

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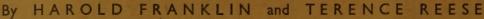
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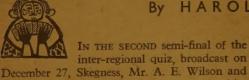
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Bridge Forum

'Inter-Regional Quiz'-Second Semi-final





December 27, Skegness, Mr. A. E. Wilson and Mrs. C. Atkins, met Eastbourne, represented by Mr. J. E. Hawkins and Mr. E. Seldon. The first part of the contest, the bidding questions, proved more than usually difficult, and left both sides on equal terms with ten points out of a possible twenty. The questions related to this hand:

AK5 ♥ K **AQ10864 Q73**

You are South, with neither side vulnerable. In each case North opens the bidding.

(1)	NORTH 1 H	EAST No Bid	SOUTH ?	WEST
(2)	1 · H· 3 · H	No Bid	3 D	No Bid
(3)	1 H 3 H 4 H	No Bid No Bid No Bid	3 D 3 S ?	No Bid No Bid
(4)	1 H 4 D	No Bid	3 D	No Bid
(5)	3 H	No Bid		

answers judged best were: (1) 3 D. (2) 3 S. (3) 5 H. (4) 4 S. (5) 4 H.

Both sides reached the optimum contract on the bidding hand. Game All. Dealer West.

WEST	EAST
♠ K 7 5 3	♠ 8 2
♥ 7	♥ A K 6 3
♦ J 10 8 6 5 4 3	A K
♣ K	A 10 8 5 2

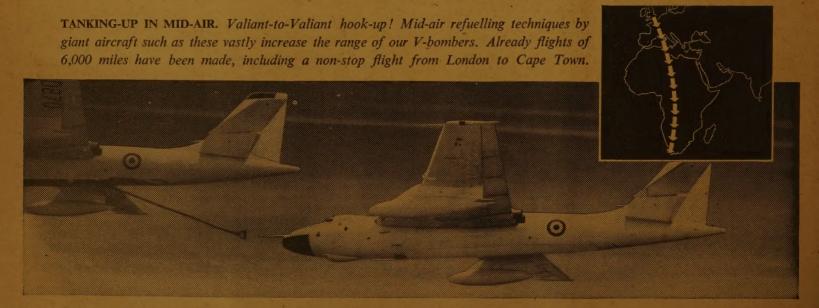
Five Diamonds scored ten: Six Diamonds would have scored six, and a diamond part score, three. The Skegness pair were convincing, using the Nottingham One Club system. The bidding of the Eastbourne pair seemed to be unbalanced, but they, too, reached the best contract after the following sequence:

WEST	EAST
No Bid	1 C
1 D	1 H
2 D	3 D
5 D	No Bio

With the scores still level the problem in play becomes the deciding factor. They were required to play the above hand in a contract of Five Diamonds, against an opening lead by North of the ten of spades, on which South plays the nine and West the King. On the first round of diamonds South shows void.

The problem is to prevent North, who has ♦ Q 9 x x, from winning a second trump trick by promotion. If the Ace and King of diamonds are played, and South takes two discards, reenters his hand and plays the Jack of diamonds, North will win, put his partner in by leading his second and presumably last spade, and a further spade lead will promote the nine of diamonds. The first stage in guarding against this possibility is to not play a second round of trumps: the Eastbourne players spotted this and, having released the King of clubs, reentered the dummy, took two spade discards on winning hearts and clubs, and threw the last spade on a third heart. This play fails if South has five hearts, since the fifth heart will promote one of North's trumps

This was so near to the winning line that it was rewarded with five consolation points. The best play is to take one round of trumps only, release the King of clubs, re-enter the dummy with a heart, and discard two spades on the heart and club winners. At this stage dummy's second spade is led. South wins; if he plays a third spade the declarer ruffs; North cannot over-ruff without giving up his trump threat, and the declarer is now able to enter the dummy with a second trump and return to his own hand safely to draw trumps. On this line of play the contract cannot fail unless North has only two cards in a suit other than spades. Skegness gave the less satisfactory answer to this problem and Eastbourne therefore go forward to the final.



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Broadcast Suggestions for the Housewife



Soupe au Chou

HERE IS A WARMING, nourishing soup that is in fact a two-course meal in itself. For four people you will need:

2 lb. of salted hand of pork 1 green cabbage (quartered) 2 lb. of carrots (quartered if large)

l large parsnip (quartered)

2 potatoes per person

bouquet garni

Wash the pork under the cold tap, then put the whole piece into a deep casserole or pan and cover it with four pints of cold water. Bring it to the boil, and then add the cabbage, the carrots, the leeks (which should have been split at the top for easy cleaning), the parsnip, the onions and bouquet garni. Bring the whole back to the boil, cover, and let it cook gently for an hour and a half. Add the 2 potatoes per person, cover again and cook gently for another

When it is cooked, serve the liquid as soup first, poured over thin slices of toasted bread. For the second course serve the meat, surrounded with all the vegetables.

MARIE-JEANNE- Today

Brittle Nut Toffee

Children will probably enjoy trying this simple recipe during the holidays. The ingredients are:

- 1 lb. of caster sugar 2 oz. of butter

- 2 oz. of chopped almonds, cashew nuts, walnuts, or barcelona nuts

Put the sugar in a strong pan over a very low

heat, and watch carefully until the sugar begins to melt. Add the milk and butter and stir with a wooden spoon until the mixture turns brown and forms a hard ball when tested in cold water. Stir in the nuts and beat over the heat in the pan for two or three minutes. Drop small heaps on to greased, waxed, or greaseproof paper and leave to set. When cold place in sweet-paper

> M. WINIFRED HARPER -Television ' Cookery Club'

Lamb Jardinière

To use breast of lamb in a way that will not be too fatty I have devised the following method. For four or six people you will need:

2 breasts of lamb

2 onions (quartered) 4 carrots (diced)

4 large tomatoes (peeled and quartered)
1 packet of frozen peas (or tin of peas)
1 teaspoon of sugar; salt and pepper

Cut each breast of lamb in four or five pieces, and put them (with the bones) into a pan and shallow fry them, without adding any fat, until they become brown. Then take the meat out of the pan and pour away all the fat, put the meat the pan and pour away all the fat, put the mean back into the pan with the carrots, onions, tomatoes, and salt, pepper, and sugar. Cover well, cook for an hour and a half, stirring now and again. Do not add any water. Add the peas and cook for another forty-five minutes. Serve very hot, with small boiled potatoes.

MARIE-JEANNE—'Today'

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Soldiers and Governments, etc.

MIRIAM CAMPS (page 1141): Research Associate, Princeton University; author of The

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B.B.C.; Head of Programmes, Ghana Broadcasting System, 1954-58; editor of African Affairs, 1944-54 MICHAEL ABERCROMBIE, F.R.S. (page 1161): Reader in Embryology, London University; editor (with C. J. Hickman and M. L.

editor (with C. J. Hickman and M. L. Johnson) of Dictionary of Biology, etc.

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Crossword No. 1,544.

Logogriphs-III.

By Topher

Prizes (for the first three correct solutions opened): book tokens, value 30s., 21s., and 12s. 6d. respectively

Closing date: first post on Thursday, January 7. Entries should be on the printed diagram and envelopes containing them should be addressed to the Editor of The Listener, 35 Marylebone High Street, London, W.1, marked 'Crossword' in the left-hand corner. In all matters connected with the crosswords the Editor's decision is final

1				-			H	-	2
3			4						
5		6	7		8				
9	10	-				Ex.	11		
12	13				14			15	100
16			17		18				19
20				21				22	
23		24		1					
25					26	27			
28	29				30				

The ten ten-letter across lights can each be anagrammed into two separate words. Clues are given for the whole word and for each of the two anagrams (not necessarily in that order), the figures in brackets being the lengths of the latter. For the four five-letter down-lights clues are given for the word to be entered in the diagram and for three anagrams thereof. Finally, for the eighty letters apart from the down-lights clues are given for lights obtained by beginning at the numbered square indicated and taking adjacent letters in any direction (i.e., chess king's move), each and every one of the eighty letters being used once and only once.

CLUES-ACROSS

- CLUES—ACROSS

 1. Imperfect, great and awkward girl monkey (3, 7)

 3. Is patient, moderate, single (5, 5)

 5. Disease settled nearer (4, 6)

 9. Serving to refute unproductive gum (4, 6)

 12. Encircles dead portion (5, 5)

 16. Air collision; an embarrassing situation (4, 6)

 20. Shovel inner seed coats on every side (4, 6)

 23. Close fish attraction (4, 6)

 25. Long cast; a good bargain (4, 6)

 28. Closely examines mental shock (5, 5)

- DOWN

 1. Foreign measure revealed food ban (5)

 2. A threesome pass fissile rock repairs (5)

 16. Trims reed to avoid cuts (5)

 19. One who is averse to courage, quick to hide (5)
- KING'S MOVE
 4. Invariable, in so far as Americans are co
 6. Obvious fort to take note of in Scotland (6)

- 7. Time is removed from the inhabitants of Paradise (4)
- 8. Summons to stop goals (5)
 10. Truth in masquerade, 'twas said (3)
 11. Backed rigid in decomposed fish (No kidding!) (6)
 13. Split revenue (4)
 14. Handle completely, when you are up to it (4)
 15. Apprehended (4)
 17. I revenue

- Apprehended (4)
 Learned to direct the steering of the dean in reverse (6)
 With rubber there is no delay in evaporative loss (3)
 Win the game by stealth (5)
 The average fugitive isn't afoot (3)
 The ancient trumpet is something of an attraction (4)
 Northern alley with a twist in it (4)
 Measures a mutilated walrus (5)
 Coal could be no cleaner without ore (6)
 Got off, he maintains, as Caesar might have said (4)

Solution of No. 1,542



NOTES

Quotation: 'Nine bean rows will I have there, a hive for the honey bee '--W. B. Yeats.

The unclued lights were names of beans: Haricot, locust, cocoa, broad, runner, soya, coffee, butter, horse.

1st prize: F. Howard (Cambridge); 2nd prize: G. Brennan (Halifax); 3rd prize: Miss B. D. Cooper (Sheffield)

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